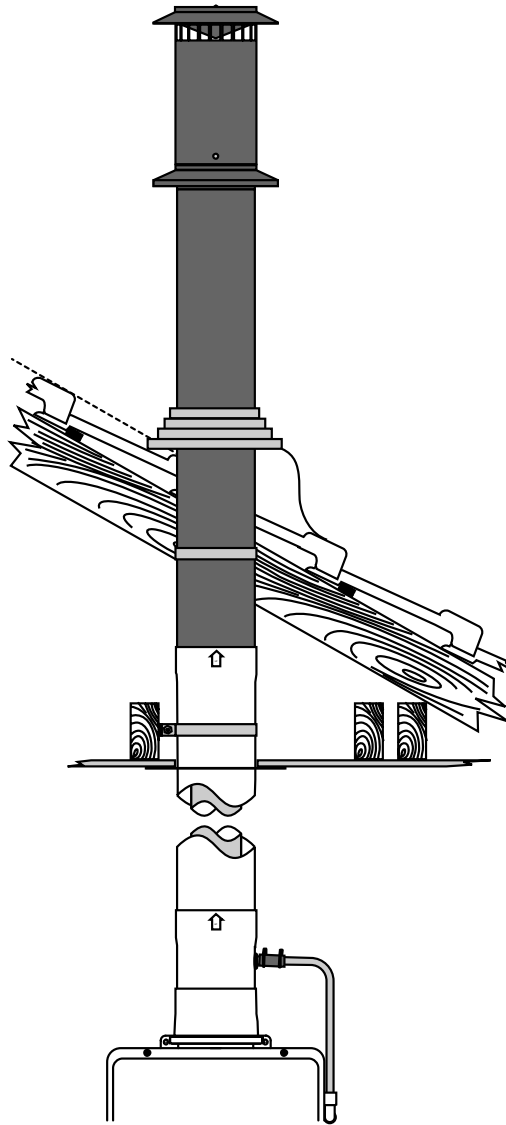


# Rinnai

## Flueing Installation Instructions for Internally installed Water Heater Models REU V2632FFU / REU V2632FFUC



**This Flue shall be installed in accordance with: -**

- Manufacturer's Installation Instructions
- Local Gas Fitting Regulations
- Municipal Building Codes
- AGA Installation Code for Gas Burning Equipment
- Any other relevant Statutory Regulation

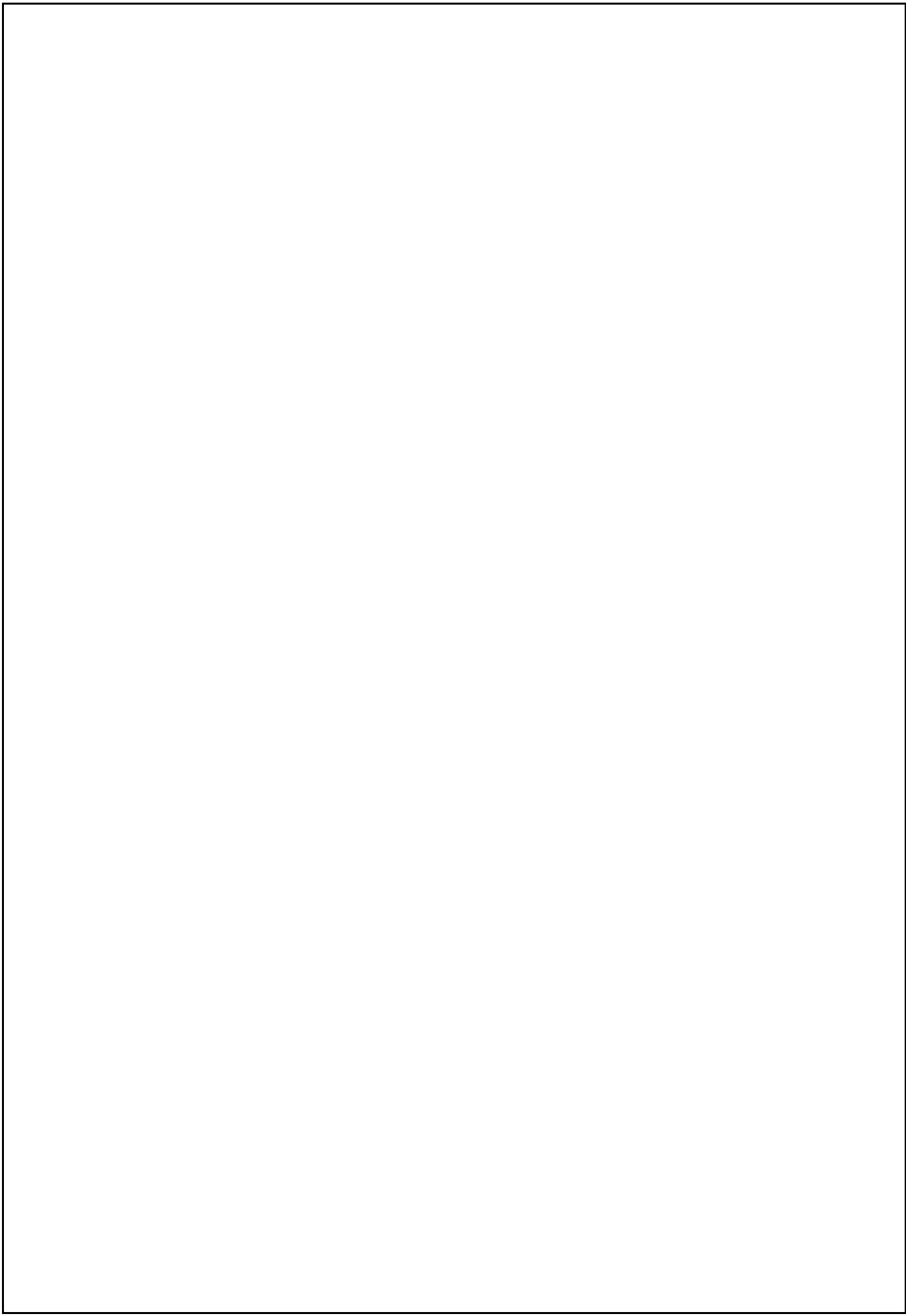
This appliance and flue system must be installed, serviced and removed by an Authorised Person.



Quality  
Endorsed  
Company

ISO 9002 Lic 4983  
Standards Australia

Distributed and Serviced in Australia under a Quality system certified as complying with ISO 9002 by Standards Australia Quality Assurance Services.



# Flueing Installation Instructions

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## Important Installation Notes

- This flue must be installed by an authorised person, the Installation must conform to local regulations.
- Installation must comply with the instructions supplied by Rinnai.
- Service and removal must be carried out by an authorised person.

## Approvals

Approved by AGA as a suitable flueing system for Rinnai REU V2632FFU / REU V2632FFUC Gas Internal Water Heaters.

## General

1. These instructions only apply to Rinnai Infinity Flueing with white plastic outer pipe. These instructions do not apply to Rinnai Infinity Flueing with the stainless steel single skin or stainless steel coaxial flue. If in doubt contact the Rinnai Australia Technical Advice Helpline: 1300 366 388.
2. Before commencing installation, please read the 'Installation Instructions - General', located inside a pouch behind the front cover of all Infinity models. The Internal Infinity Range of water heaters must only be installed with Rinnai Infinity Flueing as referred to in these instructions.
3. The requirements of the current AS5601/AG601 and local authorities must be met, which is the installers responsibility.
4. The Required clearances of the Internal Rinnai Infinity when installed as a single unit are shown in Fig.1A The appliances are AGA certified to be installed side by side as shown on **page 7**, allowing a Minimum distance between flues.
  - ❖ 270mm between horizontal terminals.
  - ❖ 160mm between vertical cowl.
5. The REU-V2632FFU/REU-V2632FFUC when correctly installed with the Rinnai approved flue components is a room-sealed appliance. No internal ventilation is required.
6. The fan assisted flue clearance dimensions in Fig 5 should be used, as the REU2632FFU is a fan-assisted appliance.
7. The outer plastic section of the coaxial flue complies with temperature hazard requirements and can be installed with zero clearance to combustible material.

# Flueing Installation Instructions

## Flueing Options

1. **Direct Horizontal Flueing**  
Direct horizontal flueing with adapter and wall terminal (**Fig.1**)
2. **Horizontal Extended Flueing**  
Horizontal extended flueing with adapter, flue pipe and wall terminal (**Fig.2**).
3. **Vertical Flueing**  
Vertical flueing with adapter, pipe and roof terminal (**Fig.3**)
4. **Vertical / Horizontal Flueing**  
Vertical / horizontal flueing with adapter using combinations of pipes and bends terminating, with either a wall or roof terminal (**Fig.4**). For condensation drain fitting requirements see **Page 8**.

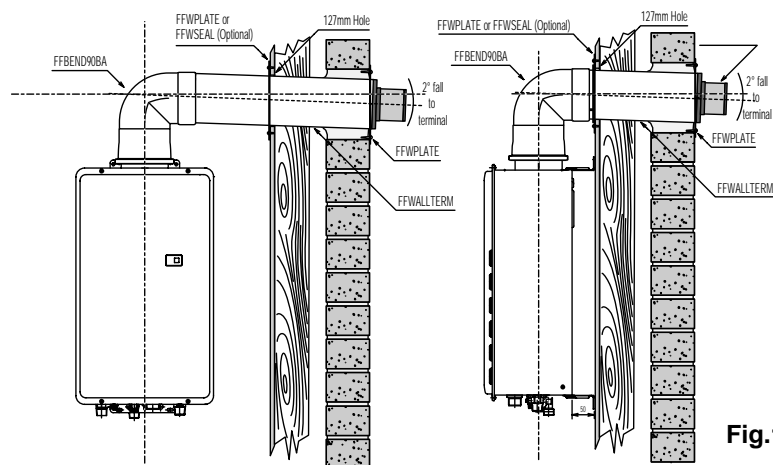


Fig.1

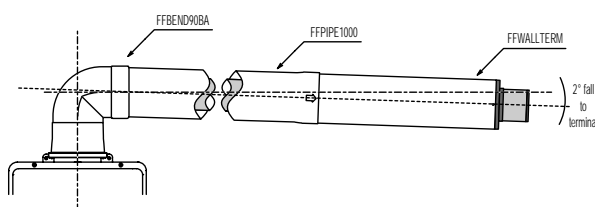


Fig.2

## Installation Tips

1. The use of soft liquid soap on the rubber seals will allow the fittings to easily slide together.
2. (It is important to use soft soap, e.g.: Liquid hand soap, as hard detergents may damage the seals and PVC outer section).
3. Rinnai recommend 100 mm of pipe (gas and water) section between the isolating valves and the appliance, which when removed will allow the Infinity to be lowered and disconnected from the flue. (**Fig. 5**).

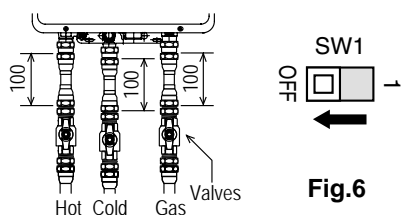


Fig.5

4. When cutting any section of the flue, remove all burrs and file a slight bevel on the outer edge to reduce any damage to the seal when inserting into the connecting fitting.

See the section 'Cutting the Flue Components' (**Fig.9**).

5. If flue length exceeds 2m, dip-switch 1 of SW1 is to be switched to the 'OFF' position (**Fig.6**).

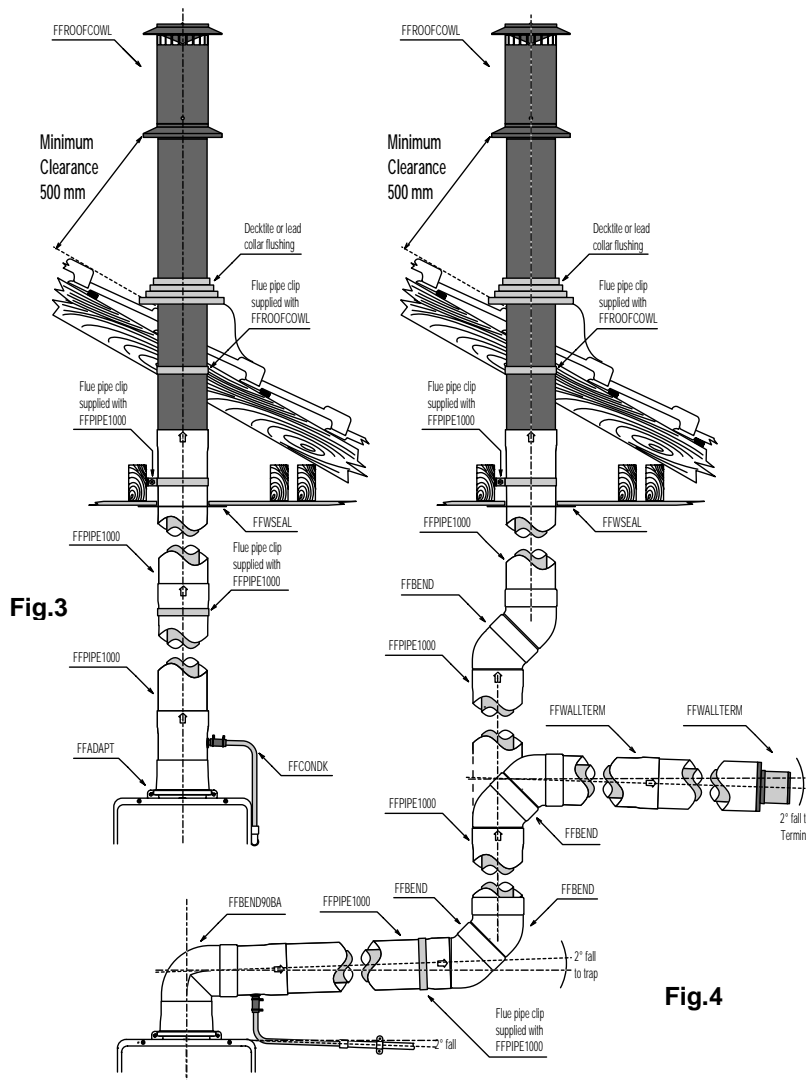


Fig.3

Fig.4

# Flueing Installation Instructions

## 1. Direct Flueing With Wall Terminal

1. The Rinnai Infinity 'Direct Flueing components must be used for this purpose. These consist of a 90°-bend adaptor, wall terminal and one wall plate. An additional wall plate can be purchased as an optional extra for Internal Installation.
2. Dimensions of the REU-V2632FFU/REU-V2632FFUC water heaters for 'direct' flueing are as shown in **(Fig.7)**. Ensure there is enough space to install the Infinity, flue assembly and pipe work. Also ensure that positioning of the flue terminal complies with the requirements of AS5601/AG601 **Clause 5.13.6.2 / Fig.5.3 page 10**.

**Warning:** The flue products can reach temperatures up to 200°C. The flue terminal is to terminate in a location, not to cause a nuisance. (AS5601/AG601/2005 clause 5.13.3.3).

### Installation

1. Using the dimensions provided in **(Fig.7)** mark the top Water Heater location hole situated in the centre of the top-mounting bracket and the centre point for the flue terminal hole.
2. Install the REU V2632 FFU water heater as per the installation instructions located in the pocket on the back of the front heater cover.
3. When installing the 90° Bend Adaptor directly backwards from the appliance it is necessary to extend the mounting brackets of the water heater to the 45mm to allow for the radius of the bend. Loosen the heater-mounting bracket securing screws and adjust the heater away from the wall as far as possible.
4. Drill a 135mm hole for the flue (Cover the flue spigot to avoid debris entering the appliance flue connection). NOTE: If the hole is drilled accurately the 90° adaptor bend will cover the hole and an internal wall plate will not be necessary. Otherwise an extra wall plate can be purchased. (Rinnai Part No. FFWPLATE).
5. Measure the length of the horizontal terminal and cut to length allowing for the outer section of the flue to extend 10mm through the wall. (See the section cutting flue components **(Fig.9)**).
6. From outside the building, fit the external wall plate to the flue terminal and place through the hole in the wall **(Fig. 2)**. Connect the terminal onto the 90° adaptor bend. Ensure the wall terminal pushes 'fully home' into the adaptor. The arrow on the side of the bend will face the in the direction of discharge.
7. To prevent rain water from entering the flue terminal ensure the required 2° fall to outside is achieved **(Fig.2)**.
8. On the outer wall, secure the decorative wall plate. Ensure the 2° fall to the flue terminal is achieved.
9. Seal the flue around the wall plate using silicon sealant.

## 2. Horizontal Extension Flueing With Wall Terminal

1. This option **(Fig.2)** can be used when the water heater is mounted against an internal wall and flueing needs to extend horizontally to exit an external wall. The Rinnai Infinity 'Direct Flueing components' must be used for this purpose, together with extension pieces & bends as required. **Total flue length can be up to 9 metres long & a maximum of 3 bends can be used.**
2. Dimensions of water heater with 90° bend adaptor connected are as shown in **(Fig. 2 & 7)** When the flue tracks horizontally, it should be installed to have a 2° fall towards the wall terminal to prevent condensation running back into the water heater as shown. Ensure there is enough space to install the Infinity, flue assembly and plumbing pipe work. Ensure that positioning of the flue terminal complies with the requirements of AS5601/AG601 **Clause 5.13.6.2 / Fig.5.3 page 10**.

**Warning:** The flue products can reach temperatures up to 200°C. The flue terminal is to terminate in a location, not to cause a nuisance. (AS5601/AG601 clause 5.13.3.3).

### Installation

1. Using the dimensions provided in **(Fig.7)**, Install the REU-V2632FFU/REU-V2632FFUC water heater as per the installation instructions located in the pocket on the back of the front heater cover.
2. Using the dimensions shown in **(Fig.7)** calculate the required number and combination of extension pieces and bends to be connected between the Infinity unit and wall terminal. Cut each length as required. (See the section cutting flue components **(Fig.9)**).

# Flueing Installation Instructions

3. Connect the 90° bend adaptor onto the heater flue spigot in the direction required. The arrow on the side of the bend will face the in the direction of flue discharge.
4. Drill a 135mm hole for the flue terminal (Cover the flue spigot to avoid debris from entering the appliance).
5. From outside the building, fit the wall plate to the flue terminal and place through the hole in the wall.
6. From inside the building fit a wall plate (if required) onto the flue.
7. Repeat steps 4 and 5 for all internal wall penetrations.
8. Secure the extension pieces between the flue terminal and 90° adaptor bend, ensuring a 2° fall to outside.
9. Ensure the flue is totally supported with the brackets supplied in each length of flue pipe.
10. Adjust the heater to the required distance from the wall and tighten the hanging bracket securing screws.
11. Secure the decorative wall plates with the terminal in the sloped down position and secure to inner and outer walls.
12. Seal between the flue and the wall plates using silicon sealant.

## 3. Vertical Straight Flueing With Roof Terminal

1. This option can be used when the water heater needs to be flued vertically through the roof. The Rinnai Infinity 'Vertical Flueing Components' with extension pieces and condensate trap (if necessary) is used for this purpose. The 'Vertical Flueing Components' consists of a Flue terminal and vertical adaptor. If the total flue height is less than 1.5 metres, a condensate trap is not required. For installations over 1.5 metres a condensate trap is required. **(Fig.3) Total flue length can be up to 9 metres long and a maximum of 3 bends can be used.**
2. All vertical installations start with the vertical adaptor. This MUST be connected with the larger end (Black outer seal) facing down on the appliance
3. Ensure there is enough space to install the Infinity, flue assembly and pipe work. Check the roof space for any flue obstructions. Also ensure that positioning of the vertical flue terminal complies with the requirements of AS5601/AG601 **Clause 5.13.6.2 / Fig.5.3.**

## Installation

1. Using the dimensions provided in **(Fig.7)** Install the REU-V2632FFU/REU-V2632FFUC water heater as per the installation instructions located in the pocket on the back of the front heater cover.
2. Fit the vertical adaptor and condensate trap (if required) onto the water heater.
3. Set plumb bob from the centre of the heater flue outlet to ceiling marking position. Cut 127mm hole in plasterboard (or suitable 'oval' for pitched roof). Repeat this step for underside of roofing.
4. Calculate the required number and combination of extension pieces and cut to length as required (See the section cutting flue components **(Fig.9)**)
5. Install flue and terminal. Flue to terminate at least 500mm from the end of the flue to the nearest part of the roof. (AS5601/AG601 clause 1 5.13.6.2) see **(Fig.3)**. Seal the roof penetration with an approved flashing.
6. Install ceiling ring. (Not supplied, if required Rinnai Part No. FFWSEAL).
7. Ensure the flue is fully supported independently of the appliance, by the use of suitable clips or brackets, as per AS5601/AG601 clause 5.13.4.2 and 5.13.4.3.
8. Ensure that the appliance can be removed without causing movement or displacement of the flue, as per AS5601/AG601 clause 5.13.4.1. This can be achieved if a 100mm distance is kept between the gas and water isolating valves and the connection points at the water heater **(Fig.5)**.
9. Ensure the condensate trap outlet (if fitted) is drained in accordance with the requirements of AS3500.4.2 clause 4.12.
10. All external outer plastic joints should be glued with approved cement to prevent water entering the flue.

# Flueing Installation Instructions

## 4. Combination Vertical & Horizontal Installations

1. The Rinnai Infinity can be installed virtually anywhere using a wall or roof terminal, extension pieces (mounted horizontally and vertically), bends, adaptors and condensate traps as required.
2. Dimensions and clearances of the Vertical Flue Terminal when installed in the roof are as shown in **(Fig.4)**.
3. Dimensions of all components are shown on **page 9**. The arrow on the side of the bend will face the in the direction of discharge.
4. Ensure there is enough space to install the Infinity, flue assembly and plumbing pipe work. Check the roof space and/or walls for any flue terminal obstructions. Also ensure that positioning of the flue terminal complies with the requirements of AS5601/AG601 **Clause 5.13.6.2 / Fig.5.3**.
5. If the total length of the flue exceeds 1.5 meters a condensate trap **MUST** be installed either vertically or horizontally adjacent to the heater. The flue should be configured to have a 2° fall towards the heater to ensure draining of condensation. Install condensate drain in accordance that shown on **Page 8** an in **Fig.10**.

## Installation

Using a combination of the installation procedures covered in the **2. Horizontal Extension Flueing with Wall Terminal** and **3. Vertical Straight Flueing with Roof Terminal** determine and install the required components.

**Warning:** The flue products can reach temperatures up to 200°C. The flue terminal is to terminate in a location, not to cause a nuisance. (AS5601/AG601 clause 5.13.3.3).

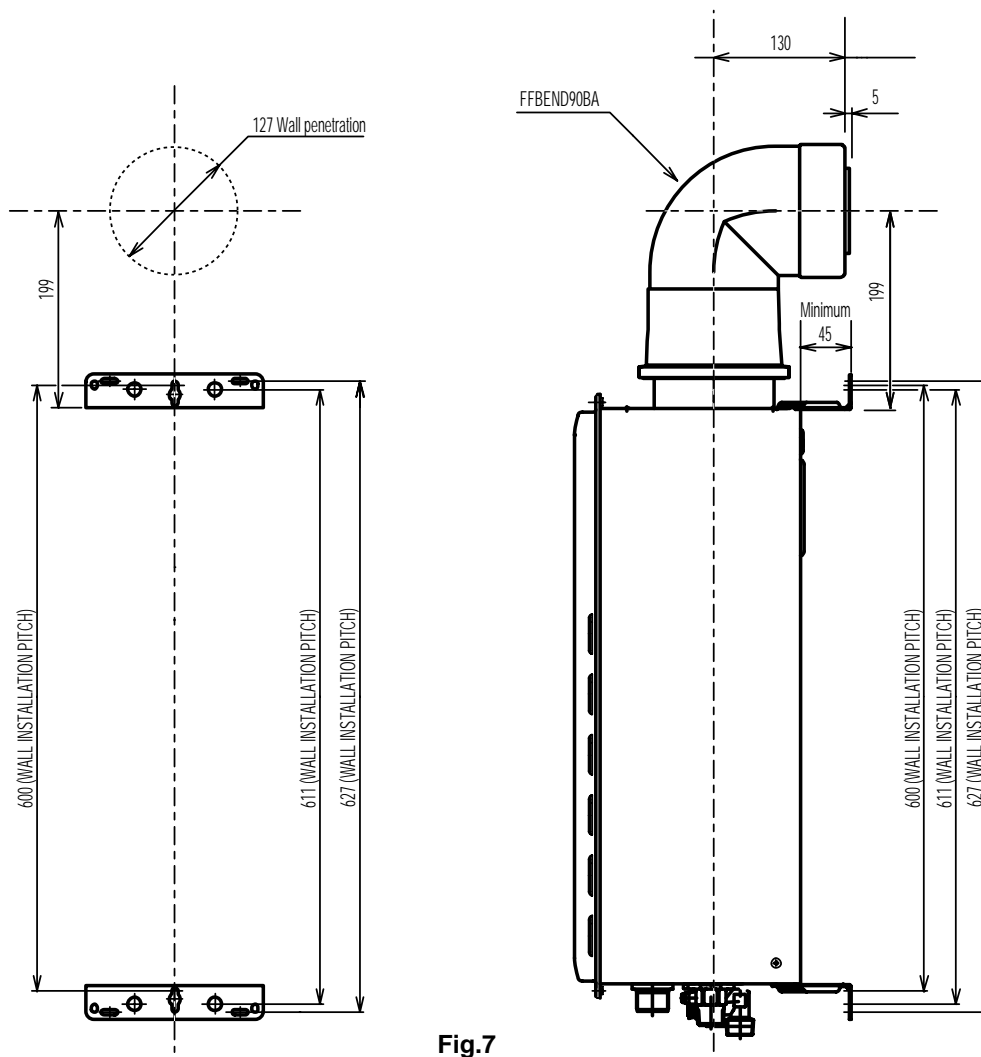


Fig.7

# Flueing Installation Instructions

## Multiple Vertical / Horizontal Installations

The terminal clearances in AS5601 / AG601 do not apply to the Infinity REU-V2632FFU/REU-V2632FFUC Water Heaters installed side by side.

The appliances are AGA certified to be installed side by side as shown in (Fig.8), allowing for a horizontal distance of 160 mm between vertical flue terminals and 270 mm between horizontal flue terminals.

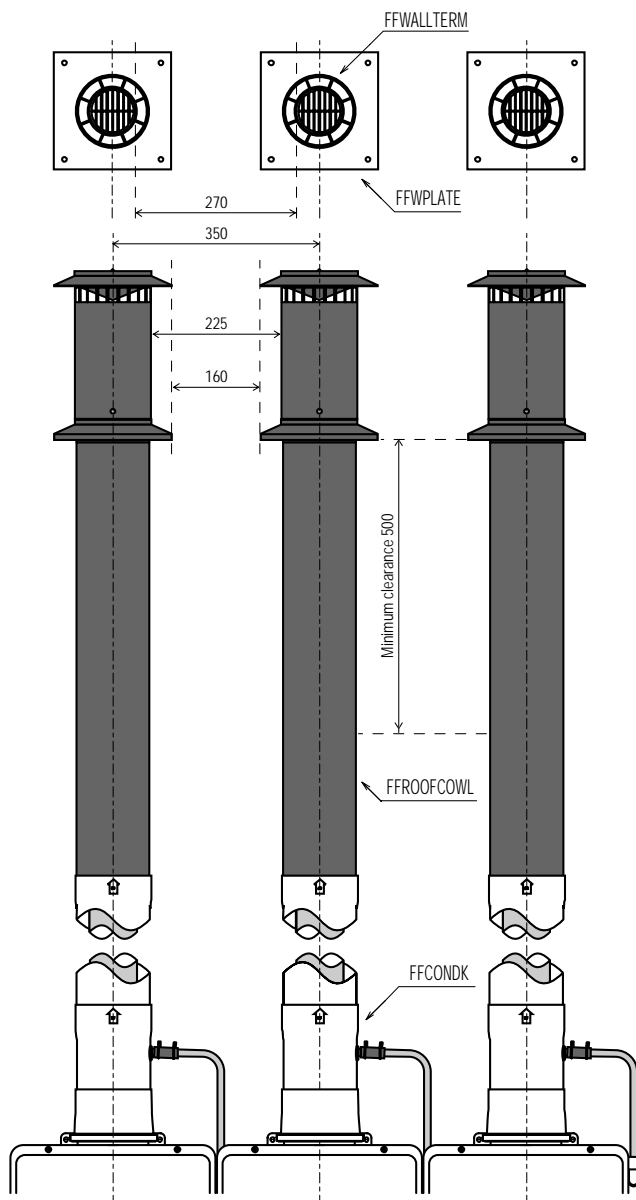


Fig.8

## Cutting the Flue Components

Note: the ONLY COMPONENTS that CAN be cut are: **FFPIPE1000**, **FFROOFCOWL** and **FFWALLTERM**

1. Using the dimensions shown on **page 9**, calculate the required number and combination of extension pieces and bends to be connected between the Infinity unit and terminal, cut the appropriate components to length as required.
2. The outer plastic flue skin section of the wall terminal and extension pieces should be cut to the required length plus 35 mm, (the extra 35 mm allows for the distance that the cut outer plastic flue pipe section will penetrate into the socket of the adjoining component). Likewise the inner metallic flue section should be cut to the required length plus 50 mm, (the extra 50 mm allows for the distance that the cut inner flue penetrates into the socket of the adjoining component).
3. Ensure all ends are cut square (The use of a mitre box will ensure a clean square cut).
4. Ensure all cut ends are free from debris and burrs.

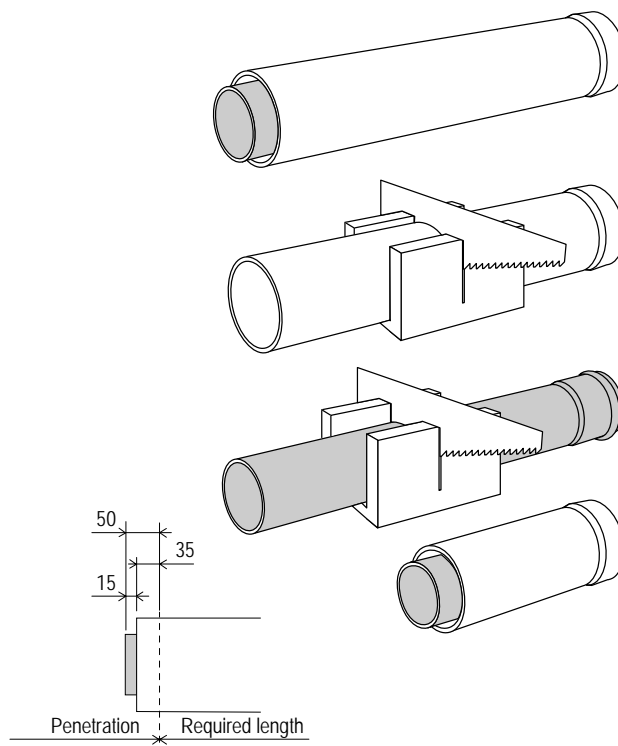


Fig.9

# Flueing Installation Instructions

## Condensate drain.

The condensate trap will collect condensate from the flue system. This condensate must be drained to the outside of the building via a condensate drain pipe. Because the condensate is mildly acidic, Rinnai recommend Clipsal 16mm rigid Grey UPVC or equivalent conduit and associate fittings: Grey UPVC Pipe (Catalogue number 9016MD), 90° Elbow (Catalogue number 245/16), Clips (Catalogue number 261/16).

## Installation

1. Connect the aluminium drain tube to the condensate trap with the black silicone socket (**Fig.10**).
2. Expand the retaining clip by pressing in the two ends; fit one clip to each end of the socket to secure the joint.
3. Using 16mm UPVC conduit, extend the drain to meet the requirements of AS 3500.4.2 Clause 4.12.2.

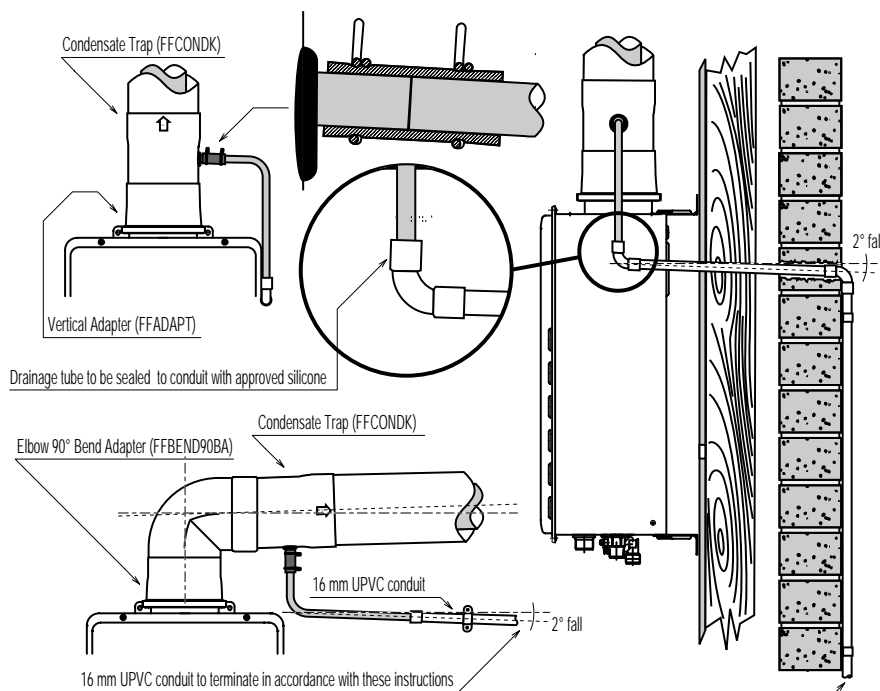
Seal the Aluminium to the UPVC with 'Easy Seal - Roof, Gutter & Metal' silicone or equivalent.

Copper tube **MUST NOT** be used as it will corrode under acidic conditions.

The allowable length of the pipe and corresponding number of bends are as per those extracted from AS 3500.4.2 Clause 4.12.2. table 4.4

Max Length M	Bends < 45°
9	3
8	4
7	5
6	6

The condensate drain must run continuously from the condensate trap connection point to the point of discharge or tundish outside the building. There must be no tap, valve or any other restrictions in the condensate drain and the tundish **MUST NOT** be located indoors.



**Fig.10**

Condensate drain lines from multiple water heaters may not be interconnected but may discharge over a tundish on a common drain line, provided the tundish is located outdoors.

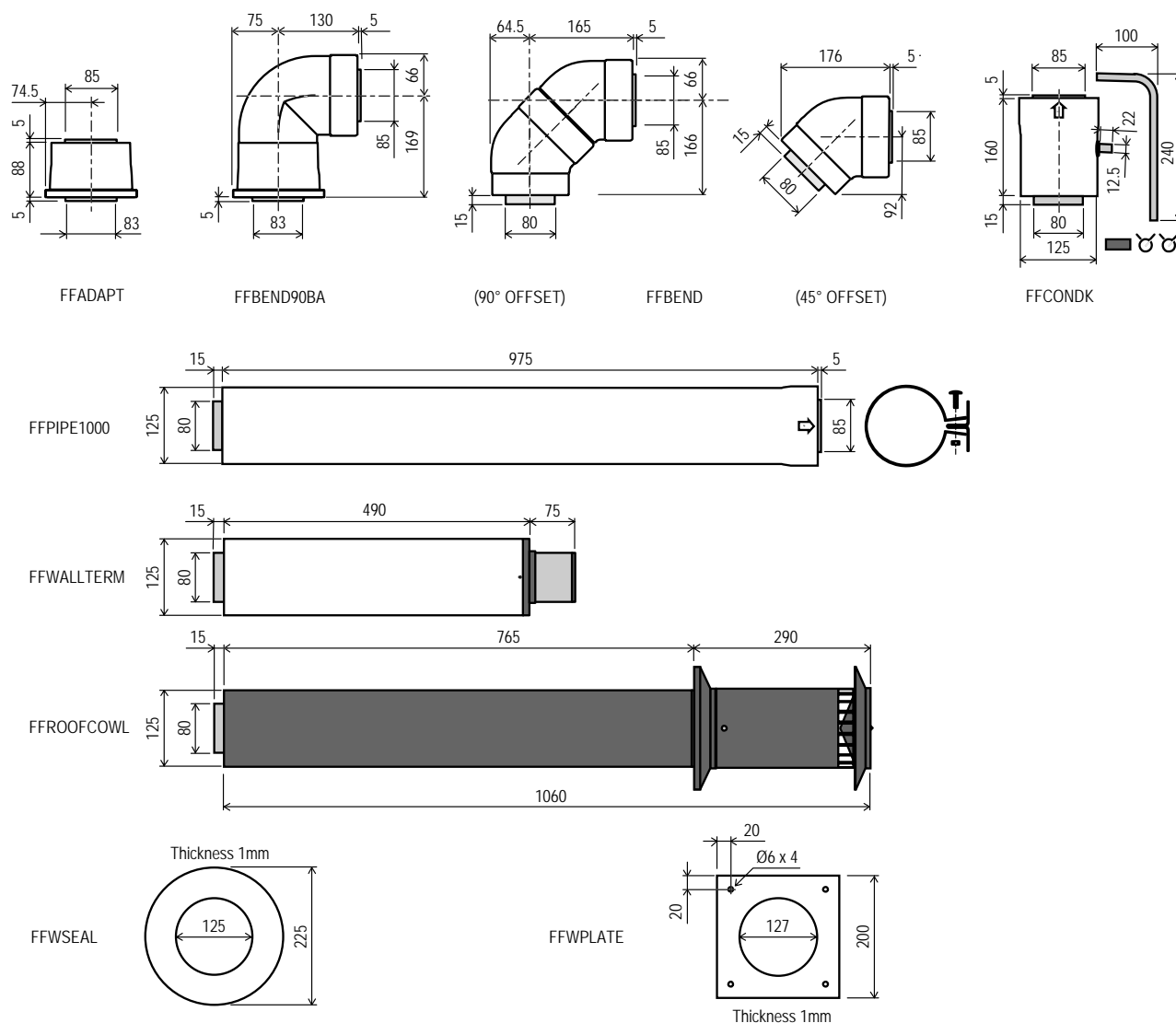
The drain from any tundish **MUST NOT** be less than one size larger than that of the largest drain line discharging into the tundish. Both the tundish and it's drain line must be made from UPVC.

The point of discharge from each drain line shall be located:

- So that the release of condensate does not cause a nuisance and incurs no risk of damage to the building or injury to persons
- Not lower than 300 mm or higher than 450 mm above an unpaved surface
- Not lower than 75 mm or higher than 300 mm above a gravel pit not less than 100 mm in diameter in a paved surface
- The point of discharge from each drain line must not be located such that discharge can fall onto electrical connections, earth stakes or copper pipes.

# Flueing Installation Instructions

## Components Page

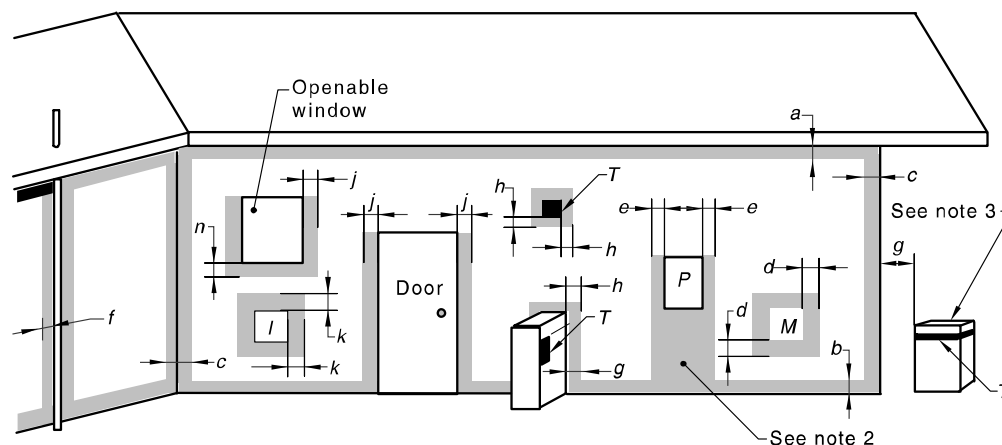


## FFU Flue Part Numbers

DESCRIPTION	CODE NUMBER	BAR CODE NUMBER
Vertical Adaptor	FFADAPT	9314109107692
Elbow 90 Degrees Bend Adaptor	FFBEND90BA	9314109107654
Universal 45/90 Degree Bend	FFBEND	9314109143058
Condensate Trap	FFCONDK	9314109107708
Flue Pipe 1000mm length	FFPIPE1000	9314109107061
Horizontal Flue Terminal	FFWALLTERM	9314109107685
Vertical Flue Terminal	FFROOFCOWL	9314109107678
Ceiling Ring	FFWSEAL	9314109107722
Wall Plate	FFWPLATE	9314109107715

# Flueing Installation Instructions

## Minimum Flue Clearances.



### LEGEND:

T = Flue terminal  
I = Mechanical air inlet

M = Gas meter  
P = Electricity meter  
or fuse box

Shading indicates prohibited  
areas for flue terminals

Ref.	Item	Minimum clearances (mm)	
		Natural draft	Fan assisted
a	Below eaves, balconies and other projections:		
	• Appliances up to 50 MJ/h input	300	200
	• Appliances over 50 MJ/h input	500	300
b	From the ground, above a balcony or other surface †	300	300
c	From a return wall or external corner †	500	300
d	From a gas meter (M) (see 4.7.11 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 † or obstruction facing a terminal	500	500
h	From any other flue terminal, cowl, or combustion air intake †	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:		
	• Appliances up to 150 MJ/h input	500	300
	• Appliances over 150 MJ/h input up to 200 MJ/h input	1500	300
	• Appliances over 200 MJ/h input up to 250 MJ/h input †	1500	500
	• Appliances over 250 MJ/h input †	1500	1500
	• All fan-assisted flue appliances, in the direction of discharge	-	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 input	150	150
	• Other appliances up to 50 MJ/h input	500	500
	• Appliances over 50 MJ/h input and up to 150 MJ/h input	1000	1000
	• Appliances over 150 MJ/h input	1500	1500

† Unless appliance is certified for closer installation

- All distances are measured to the nearest part of the terminal.
- Prohibited area below electricity meter or fuse box extends to ground level.
- See Clause 5.13.6.6 for restrictions on a flue terminal under a covered area.
- See Appendix J, Figures J2(a) and J3(a), for clearances required from a flue terminal to an LP Gas cylinder. A flue terminal is considered to be a source of ignition.
- For appliances not addressed above acceptance should be obtained from the technical regulator

FIGURE 5.3 (in part) MINIMUM CLEARANCES REQUIRED FOR BALANCED

Extract from AS5601/AG601-2004 5.13.6.5 Fig 5.3

# Contact Points

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