

# INDOOR CONTINUOUS FLOW FLUE SYSTEM



## INDOOR INSTALLATION

The Rheem 27 CFWH is available in models suitable for indoor installation. The flue system is a room sealed concentric design (coaxial) manufactured from high grade stainless steel inner and aluminised steel outer.

Separate ventilation for combustion is not required as the air for combustion is supplied in the flue outer. The flue system can be installed with zero clearances from combustible materials. Flue termination must comply with the requirements of AS/NZS 5601.1.

### WARNING:

Rheem indoor continuous flow water heaters must only be installed using certified Rheem coaxial flue components.

**Do not use any other type of flue parts. Carefully follow the Installation Instructions.**

This pictorial guide does not replace the Owner's Guide and Installation Instructions supplied with the water heater.

The installation instructions should be read in full and referred to for details. Rheem will not accept any liability for failure to read or install the water heater in accordance with the installation instructions.

## TYPICAL INSTALLATIONS

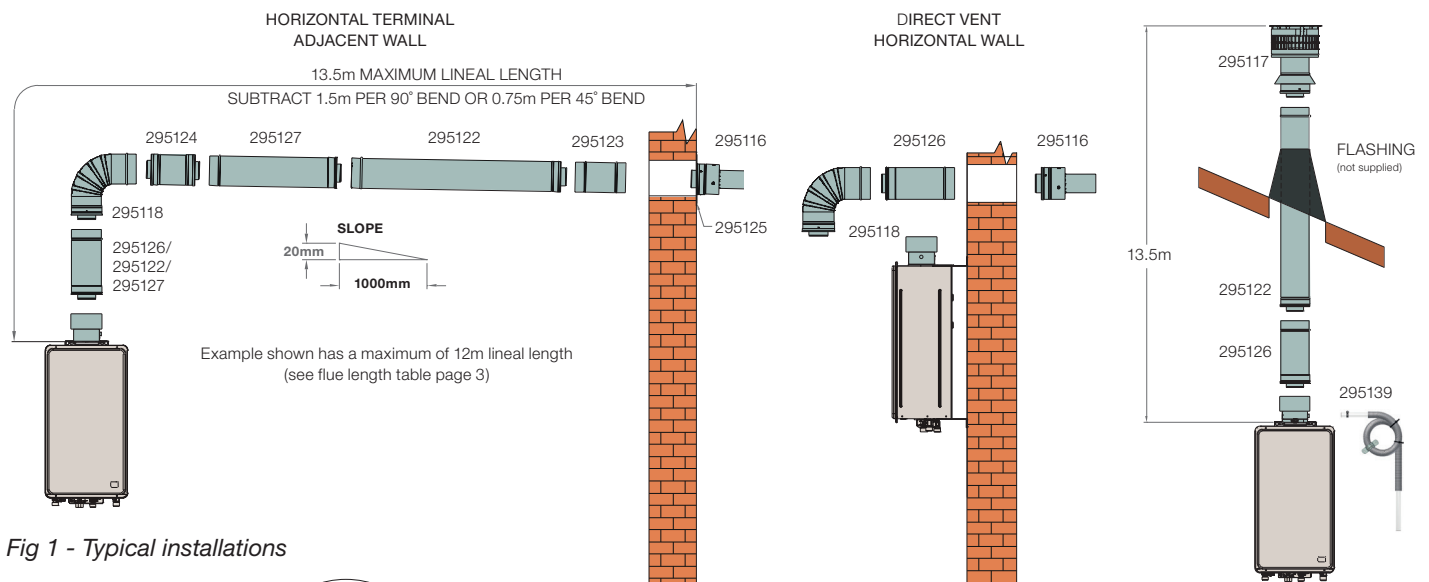


Fig 1 - Typical installations

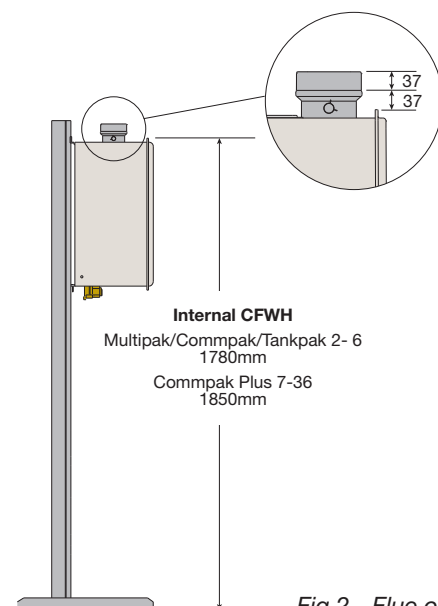


Fig 2 - Flue outlet height

## HOW TO SIZE

Use the following as a guide to selecting the flue components required.

The overall dimension of each flue piece is shown in the drawings. Allow approx 35mm for insertion of each flue piece.

Determine the lineal distance and number of 45° and/or 90° bends between the top of the flue spigot on the water heater and the flue terminal.

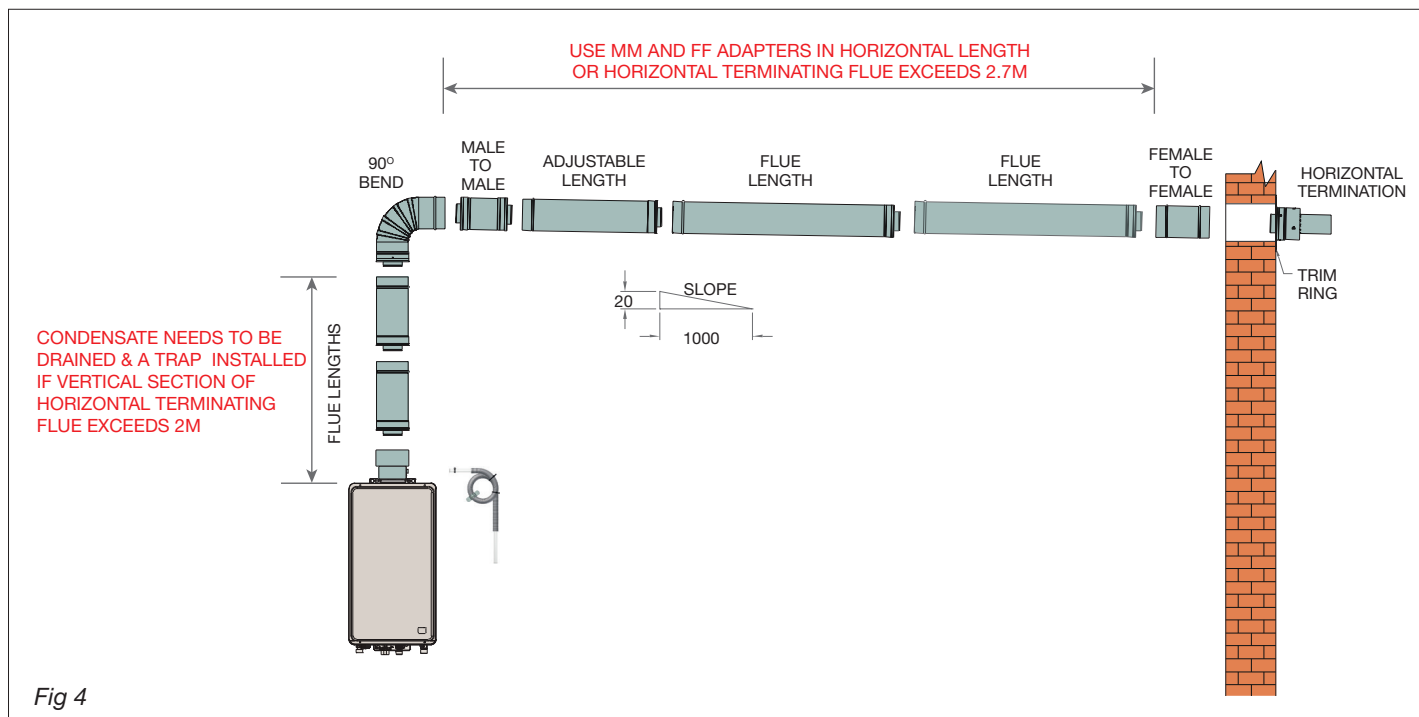
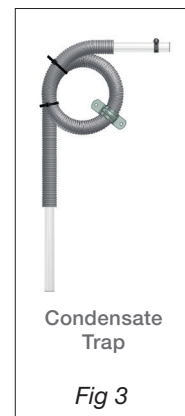
Note: the bottom edge of a vertical flue terminal must be 500mm away from the nearest structure in accordance with AS/NZS 5601.1.

Flashing is required to be installed where a vertical flue section penetrates the roof line (not supplied).

Flue penetrations through walls and ceilings must be sealed in accordance with local fire regulations.

## CONDENSATE DRAINAGE

- The Flue outlet incorporates a condensate drain which is supplied capped. A Condensate Trap P/No 295139 must be fitted to the condensate drain in any installation incorporating a **vertical flue terminal** to remove any condensate which may form in the flue.
- Where 2 x 90° bends create a vertical section in either **horizontal or vertical terminating** flue systems, the horizontal section between the bends must slope towards the water heater and a Condensate Trap P/No 295139 must be used to prevent condensate from pooling in the horizontal section, see Fig 5.
- Horizontal flue sections in flue systems incorporating a **horizontal flue terminal** are to be oriented with a slope towards the terminal to drain any condensate which may form in the flue way and prevent any rain from draining into the flue/building, see Fig 4.
- Where vertical sections exceeding 2m are incorporated in a **horizontally terminating flue** system, Condensate Trap P/No 295139 must be used, see Fig 4.

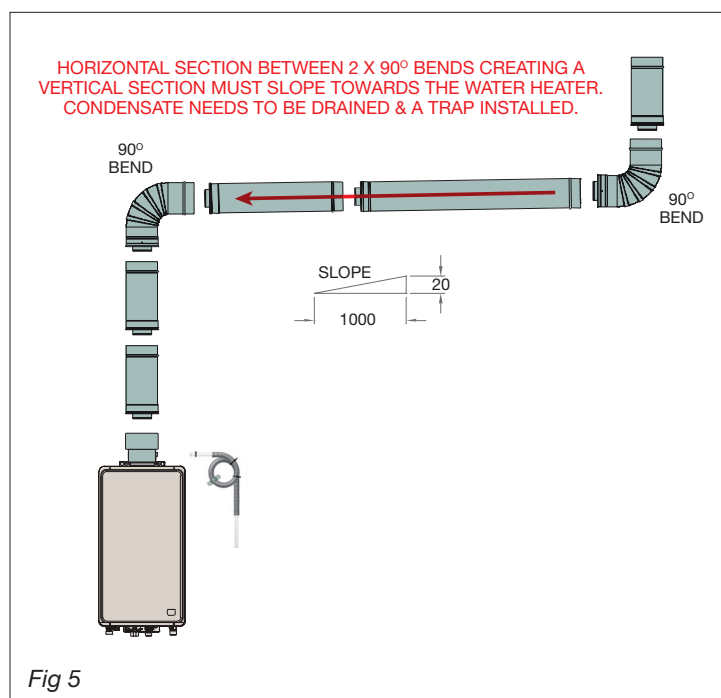


## MALE MALE AND FEMALE FEMALE ADAPTERS

Horizontal flue sections in flue systems incorporating a **horizontal flue terminal** are to be oriented with a slope towards the terminal to drain any condensate which may form in the flue way and prevent any rain from draining into the flue/building.

Where the horizontal section exceeds 2.7m (ie more than 3 x 900mm lengths) a Male Male Adapter P/No 295124 and a Female Female Adapter P/No 295123 must be used to limit the potential for condensate to pool within the flue section.

These adapters reverse the direction of the flue insertion and allow condensate to drain to the horizontal terminal without any obstruction/pooling, see Fig 4.

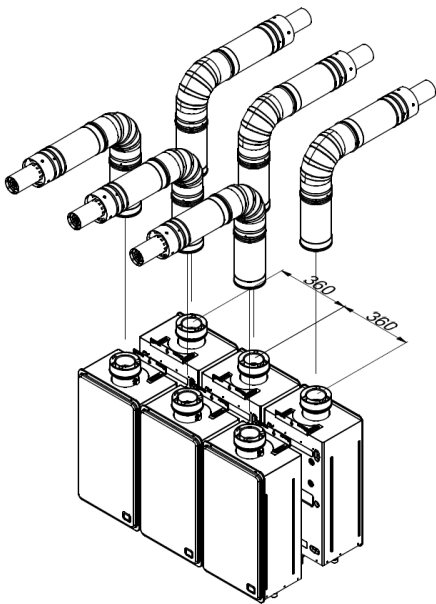


# MULTIPLE WATER HEATER FLUE INSTALLATION

Where multiple water heaters are installed, each water heater must be individually flued to the outside. A common flue system **MUST NOT** be used.

For a multiple unit installation, the water heater is certified for installation with zero clearance between adjacent water heaters. Observe flue terminal clearances from other objects in accordance with AS/NZS 5601.1.

Note: All flues for multiple water heaters **MUST** terminate horizontally.

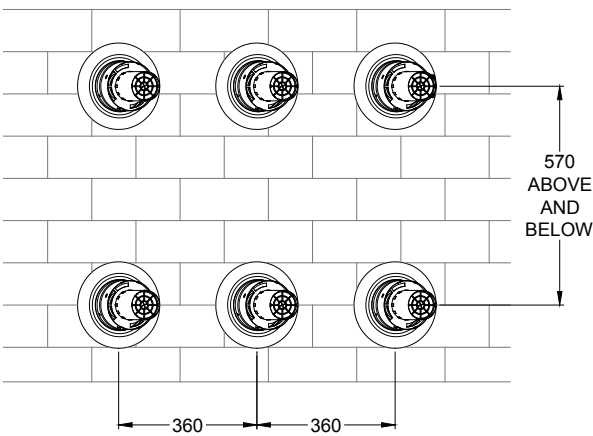


## FLUEING THROUGH THE ROOF

- The minimum side by side centre to centre distance between flue terminals is to be no less than 360 mm.
- Run the flueing through the roof as dictated by plant room requirements.
- Each flue is to be terminated horizontally by using 90° bends (PN 295118) and horizontal flue terminals (PN 295116).
- The flue terminals for back to back water heaters should be installed 180° opposite to each other as shown.

## FLUEING THROUGH THE WALL

- The minimum horizontal centre to centre distance between flue terminals is to be no less than 360mm.
- The minimum vertical centre to centre distance between flue terminals is to be no less than 570mm.



## MAXIMUM FLUE LENGTH TABLE

No x 90° Bends	No x 45° Bends	Maximum Flue Length (m)
0	0	13.5
1	0	12.0
2	0	10.5
3	0	9.0
4	0	7.5
5	0	6.0
0	1	12.75
0	2	12.0
0	3	11.25
0	4	10.5
0	5	9.75
0	6	9.0
0	7	8.25
0	8	7.5
0	9	6.75
0	10	6.0

The certified flue length is 9m with a maximum of 3 x 90° bends. The maximum flue length with no bends can be 13.5m.

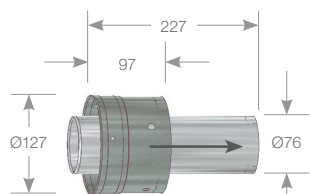
Reduce the maximum length by 1.5m for every 90° bend and by 0.75m for every 45° bend. The flue system is suitable for vertical or horizontal termination when used with the appropriate terminal.

Note: It is theoretically possible to have an odd number of 45° bends (for example a horizontal terminal installed on a wall that is 45° to the wall to which the CFWH is mounted) and in this instance the equivalent length of the 45° bend should be added or subtracted as required.

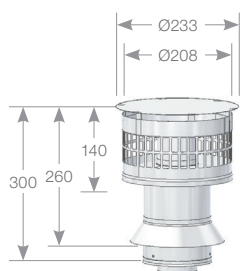
# RHEEM CONTINUOUS FLOW FLUE COMPONENTS

Use the following table as a guide to selecting Rheem Continuous Flow flue components:

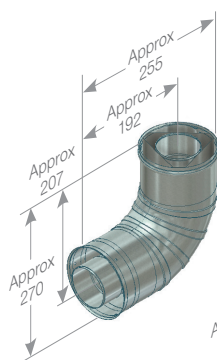
P/No	Description	Where Used
295116	Horizontal Terminal	Required where flue terminates horizontally
295117	Vertical Terminal	Required where flue terminates vertically
295118	90° Bend	Maximum of 3 per installation
295119	45° Bend	Maximum of 6 per installation (with no 90° bends)
295122	Straight Length 900mm	Long straight sections
295123	Female Female Adapter	Required to reverse flue pipe direction to allow condensate to drain away correctly from water heater in long horizontal sections of horizontally terminating flues
295124	Male Male Adapter	Required to reverse flue pipe direction to allow condensate to drain away correctly from water heater in long horizontal sections of horizontally terminating flues
295125	Trim Ring (optional)	Conceal internal and/or external hole in wall for horizontally terminating flues
295126	Straight Length 300mm	Short straight sections
295127	Adjustable Length 560 – 890mm	Allows to trim flue to exact length required
295129	Bracket	Support flue at intervals not exceeding 2m and after any bend
295139	Condensate Trap	Required with every condensate drain. Can be connected to a common waste



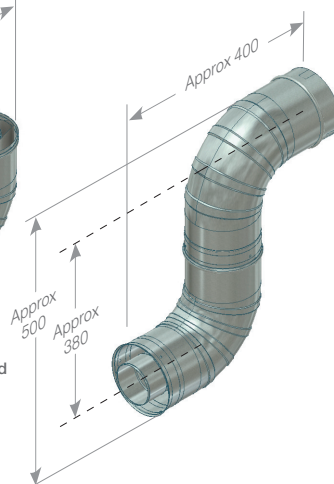
295116 Horizontal Terminal



295117 Vertical Terminal

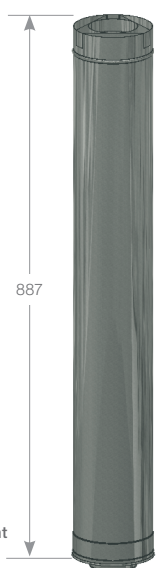


295118 90° Bend

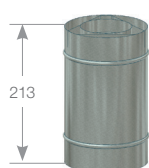


295119 45° Bend

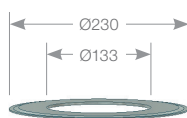
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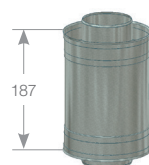
295122 – Straight Length 900mm



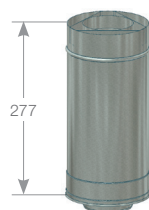
295123 FF Adapter



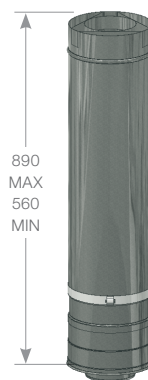
295125 Trim Ring



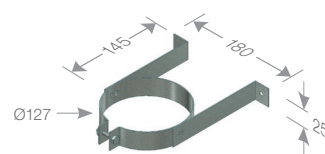
295124 MM Adapter



295126 Straight Length 300mm



295127 – Adjustable Straight 560 – 890mm



295129 – Bracket



295139 Condensate Trap

Correct as of September 2018 Rev E