

Technical Bulletin



Vent Instructions for Water Heaters

Models Affected: 2520FFU(C) and 2532FFU(C)

The purpose of this Technical Bulletin is to provide the venting instructions which are being added to the indoor (FFU) water heater manual. These instructions simplify and reduce errors in determining the maximum vent length for water heater installations and revise requirements for dealing with condensate.

These instructions are applicable to installations at sea level up to 2000 feet. For installations above 2000 feet contact Rinnai.

Vent Length: Determine the number of 90 degree elbows in the vent system. (Two 45 degree elbows count as one 90 degree elbow.) The table below indicates the maximum vent length based on the number of elbows.

Maximum Vent Length	Number of 90° Elbows						
	0	1	2	3	4	5	6
	41 ft ① (12,5 m)	35 ft ② (10,7 m)	29 ft ③ (8,8 m)	23 ft (7,0 m)	17 ft (5,2 m)	11 ft (3,4 m)	5 ft (1,5 m)
	① If the length is less than 22 ft (6,7 m) then move dip switch no. 1 (SW1) to ON. ② If the length is less than 16 ft (4,9 m) then move dip switch no. 1 (SW1) to ON. ③ If the length is less than 10 ft (3,0 m) then move dip switch no. 1 (SW1) to ON.						

Example: If you have two elbows then your maximum vent length is 29 feet (8,8 m). Move dip switch no. 1 to ON if your actual length is less than 10 feet (3,0 m).

Intake / Exhaust Guidelines

- This water heater is a direct vent water heater and therefore is certified and listed with the vent system. The only vent/air intake system listed for use with this appliance is the Rinnai/Ubbink vent system or the Heat-Fab Saf-T Vent SC system.
- Minimum wall thickness is 4 in (102 mm). Maximum wall thickness is 20 in (508 mm).
- Do not combine vent components from different manufacturers.
- The vent system must vent directly to the outside of the building and use outside air for combustion.
- Every vent connection must be accessible for inspection, cleaning, and replacement.
- Avoid dips or sags in horizontal vent runs by installing supports per the vent manufacturer's instructions.
- Support horizontal air intake runs every four feet and all vertical air intake runs every six feet or in accordance with local codes.
- Venting should be as direct as possible with a minimum number of pipe fittings.
- Vent diameter must not be reduced.
- Do not connect the venting system with an existing vent or chimney.
- Do not common vent with the vent pipe of any other water heater or appliance.
- Vent connections must be firmly pressed together so that the gaskets form an air tight seal.
- Refer to the vent pipe manufacturers' instructions for component assembly instructions.
- The vent component to the appliance must be an appliance adapter. This will prevent additional components from being installed backwards.

Condensate

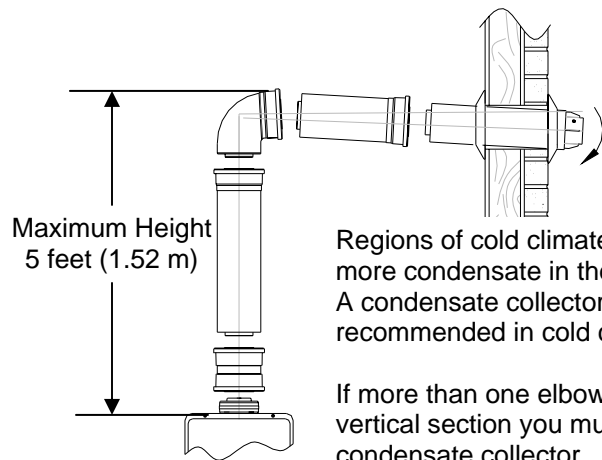
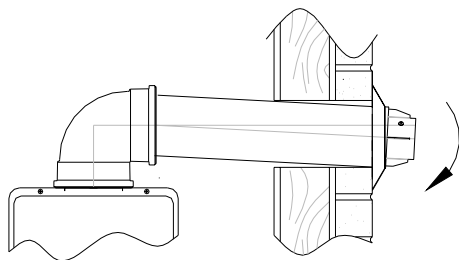
Condensate formation can occur in Category III direct vent appliances. To prevent condensate damage follow these instructions and the figures.

- Vertical terminations must incorporate a condensate drain and trap as close as possible to the appliance.
- The condensate trap must contain a minimum of 3 inch (75 mm) of water.
- Dispose of condensate per local codes.
- Slope horizontal venting 1/4 inch per foot (19 mm / m), either towards the heater with a condensate collector or towards the exhaust terminal.

NOTICE

Provisions must be made to prevent the condensate from entering the water heater. Without proper drainage or disposal condensate will damage the heat exchanger.

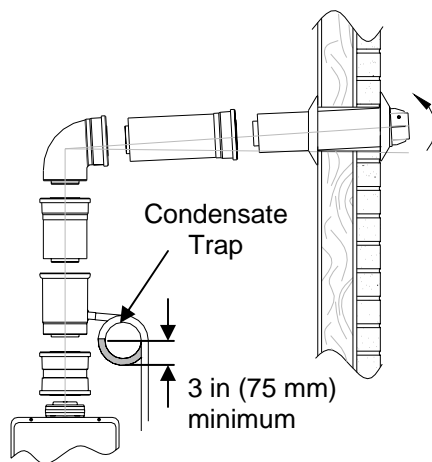
Horizontal Venting without a Condensate Collector



Regions of cold climate will create more condensate in the vent system. A condensate collector is recommended in cold climates.

If more than one elbow is used in the vertical section you must use a condensate collector.

Horizontal Venting with a Condensate Collector



Vertical Venting (condensate collector required)

