

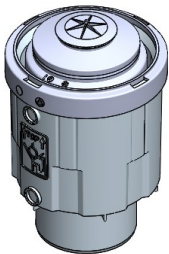
Technical Bulletin 135 — Approved 3” and 4” PVC/CPVC Common Vent

The purpose of this technical bulletin is to announce the approval of 3” and 4” PVC/CPVC common venting for the following indoor Condensing Tankless Water Heaters:

- RUR98i (REU-KBP3237FFUD-US)
- RU98i (REU-KB3237FFUD-US)
- RUC98i (REU-KBD3237FFUD-US)
- C199i (REU-KBD3237FFUDC-US)
- DEMAND DUO (CHS199100)

Features include:

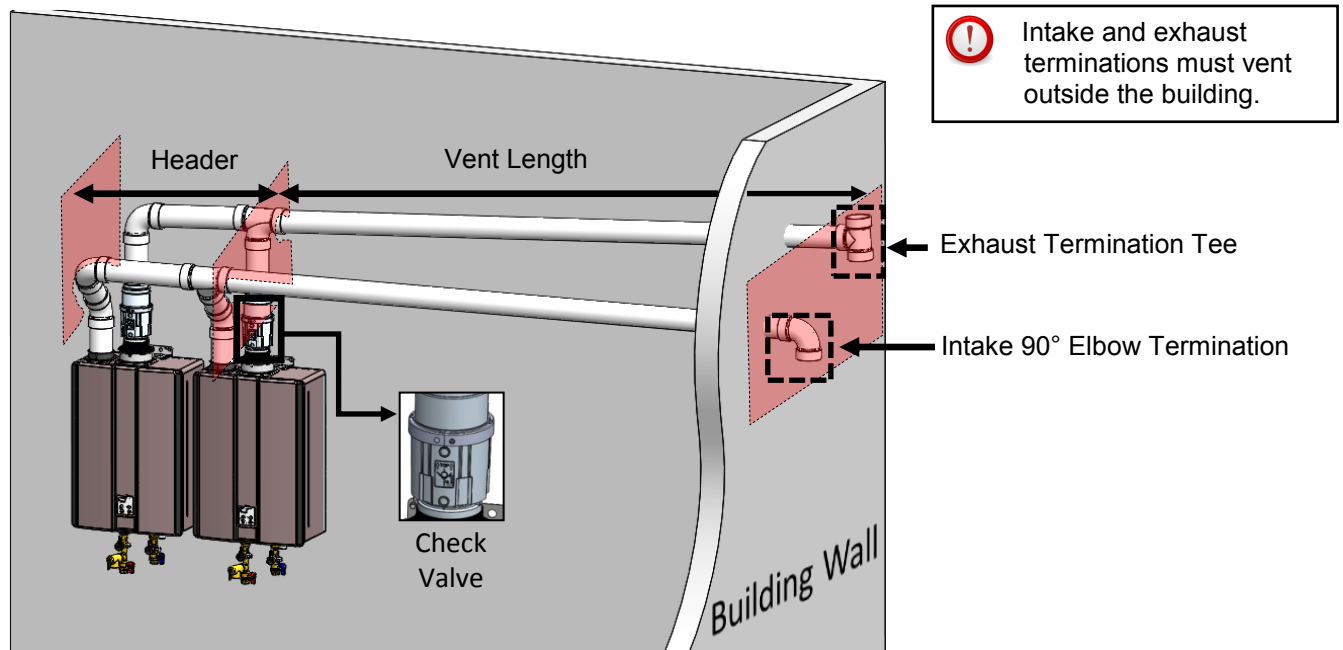
- Approved for use in U.S. only
- Certified for Direct Vent applications only
- Certified for 3” and 4” Schedule 40 Solid Core PVC/CPVC
- Requires installation of the Ubbink Non-Return Flue Check Valve:



Part Name	Ubbink Non-Return Flue Check Valve
Rinnai Part #	790111
Description	<ul style="list-style-type: none"> • Prevents the backflow of exhaust gases into idle tankless water heaters. • Must be installed on each tankless water heater that is a part of the PVC and CPVC common vent system. • Intended for exhaust flow only. Intake air must be plumbed separately to the intake side of the tankless water heater. • Accepts 3” PVC/CPVC <i>4” PVC/CPVC system sizes achieved through the use of reducers attached to 3” PVC/CPVC</i>


- For detailed venting instructions and requirements not covered in this technical bulletin, refer to:
 - Rinnai Tankless Water Heater Installation and Operation Manual
 - **(NEW MANUAL)** PVC and CPVC Common Venting with Non-Return Flue Check Valve Installation Instructions (100000474). This manual is shipped with purchase of a Non-Return Flue Check Valve.

Common Vent Components



Header	The main vent pipe into which several vents connect.
Vent Length	The distance from the end of the header to the vent termination. Maximum vent length starts at the end of the header system.
Termination (FIELD SUPPLIED)	Includes a 90° elbow or tee. Intake and exhaust terminations must vent outside the building.
Check Valve	Prevents the backflow of exhaust into the tankless water heater.

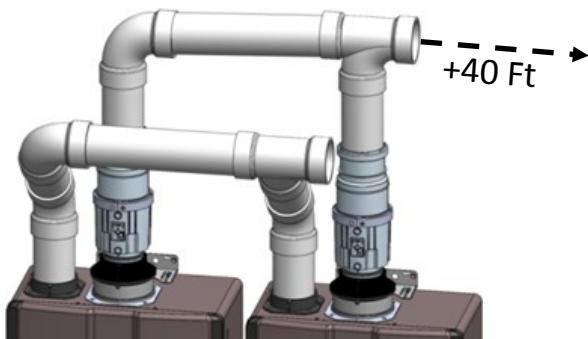
Maximum Equivalent Vent Lengths

 PVC/CPVC vent components are field supplied.

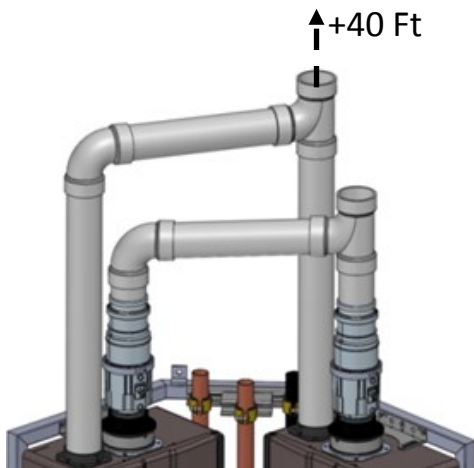
3" PVC/CPVC

- Connects to 2 tankless water heaters
- Inline or Corner
- Header length is accounted for based on 20.5" center-to-center.
- Max Equivalent Vent Lengths:
 - 2 Units: 40 Feet

2 Units - Inline Configuration



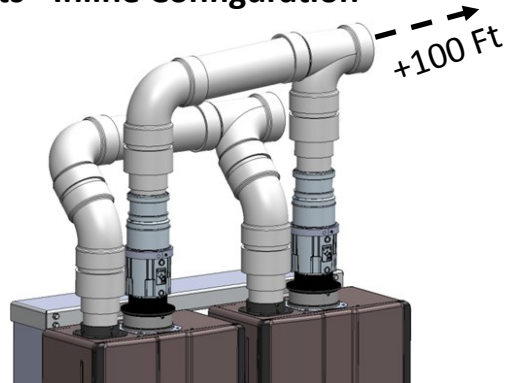
2 Units - Corner Configuration



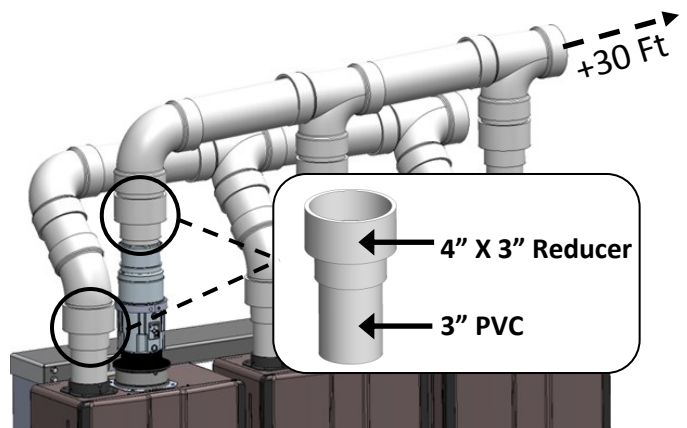
4" PVC/CPVC

- Connects to 2 or 3 tankless water heaters
- Use 3" PVC/CPVC at the tankless water heater, followed by 4" X 3" reducers
- Header length is accounted for based on 20.5" center-to-center.
- Max Equivalent Vent Lengths:
 - 2 Units: 100 Feet
 - 3 Units: 30 Feet

2 Units - Inline Configuration



3 Units - Inline Configuration

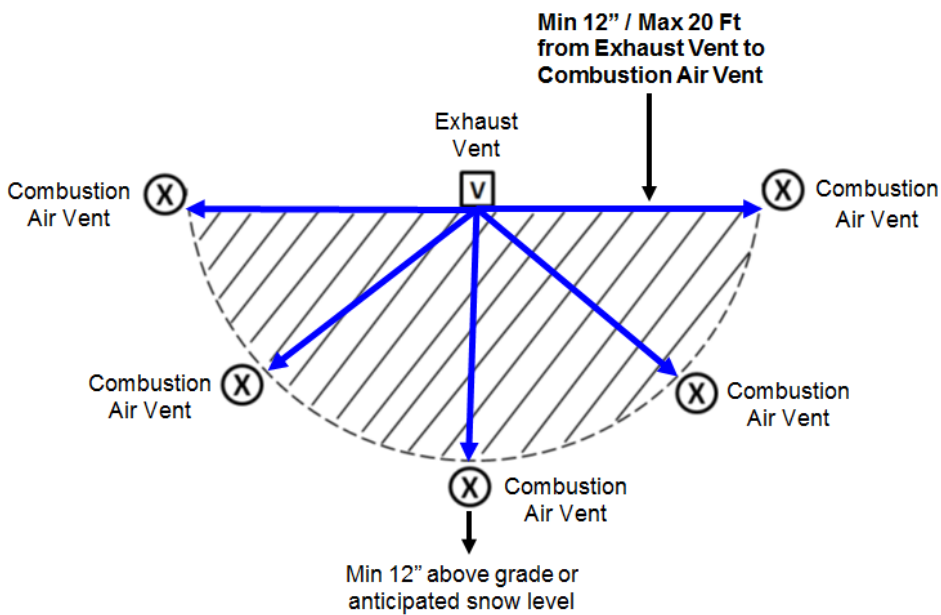


When determining maximum equivalent vent length, take into consideration the following:

- 45° elbow is equivalent to 5 Ft.
- 90° elbow is equivalent to 10 Ft.
- Tee termination is equivalent to 10 Ft.
- Spacing greater than 20.5" center-to-center is considered vent length.
- The Header is not part of the maximum equivalent vent length.

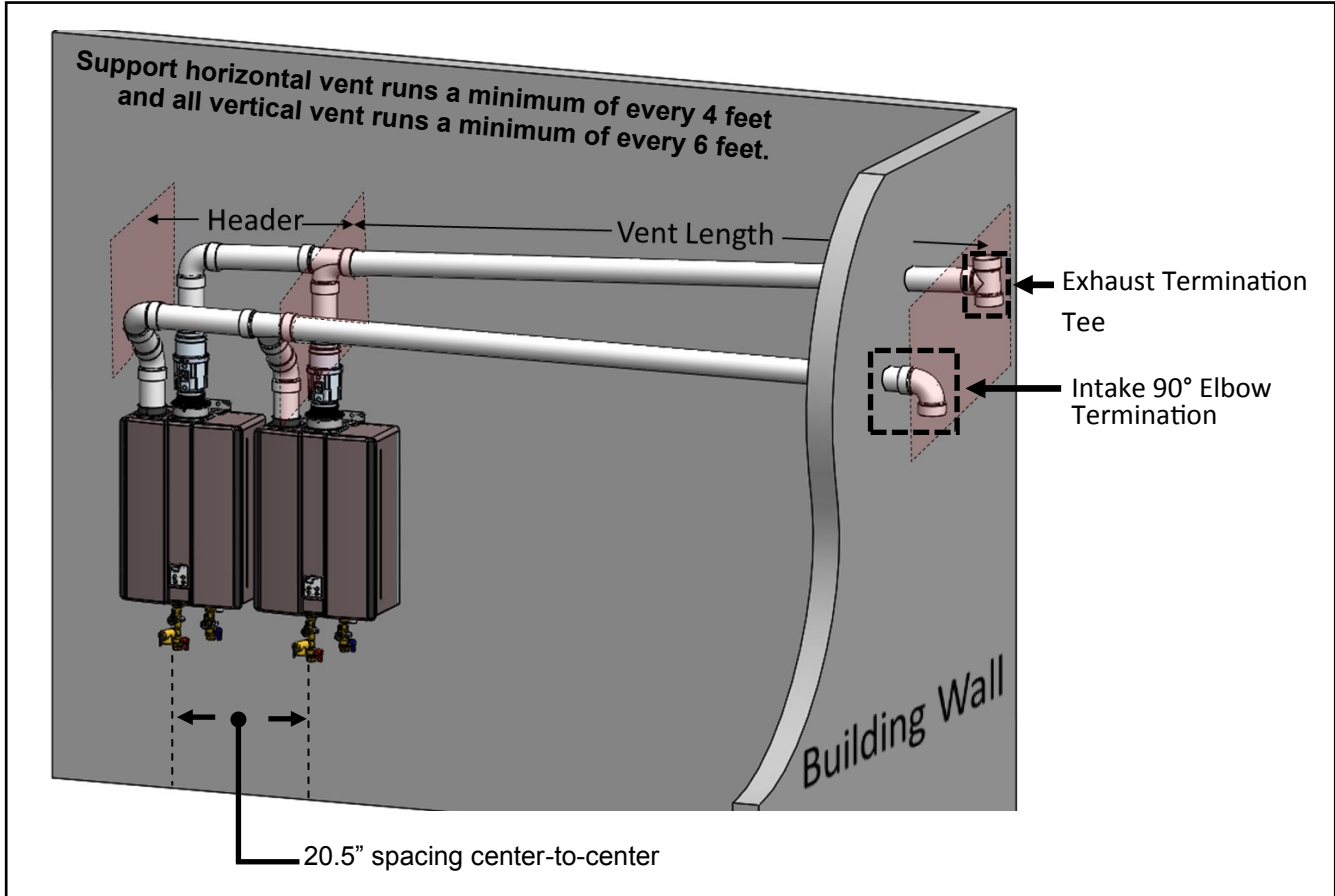
Horizontal Venting

The exhaust and combustion air terminations must have 12" minimum and 20 Ft. maximum separation.



- Requirements**
- Slope horizontal exhaust run towards the water heater 1/4" per foot.
 - **DO NOT** slope combustion air pipe towards unit.
 - Must terminate outside of building.
 - Header length is accounted for based on 20.5" center-to-center.
 - Support horizontal vent runs a minimum of every 4 Ft.
 - Support vertical vent runs a minimum of every 6 Ft.

COMBUSTION AIR IS NOT ALLOWED IN THE SHADED AREA



Vertical Venting

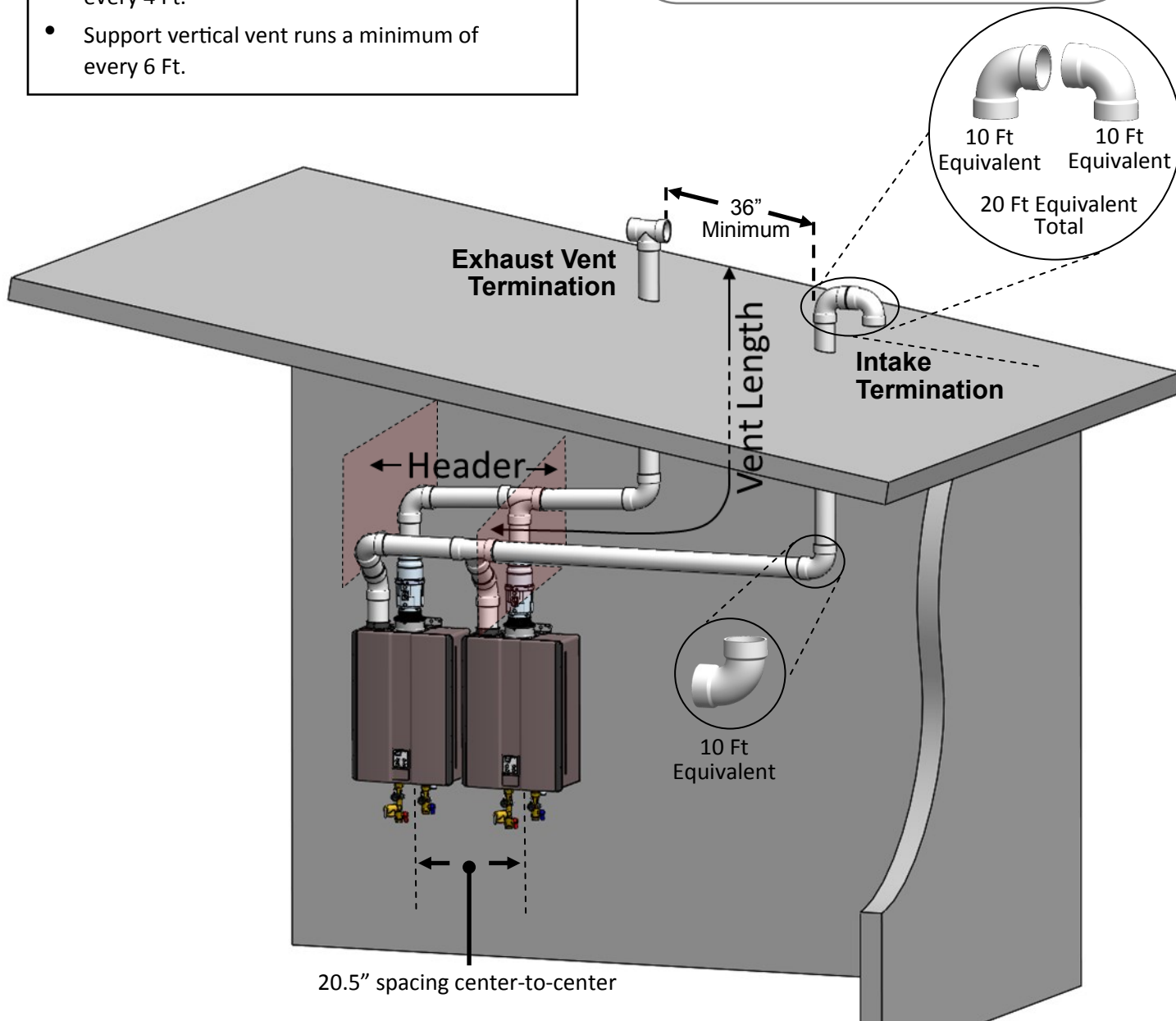
Requirements

- Slope horizontal exhaust run towards the tankless water heater 1/4" per foot. DO NOT slope combustion air pipe towards unit.
- Must terminate outside of building.
- Header length is accounted for based on 20.5" center-to-center.
- Support horizontal vent runs a minimum of every 4 Ft.
- Support vertical vent runs a minimum of every 6 Ft.

IMPORTANT

Determining Equivalent Feet

- 45° elbow is equivalent to 5 Ft.
- 90° elbow is equivalent to 10 Ft.
- Tee termination is equivalent to 10 Ft.
- Spacing of tankless water heaters greater than 20.5" center-to-center is considered vent length.



Rinnai America Corporation • 103 International Drive, Peachtree City, GA 30269

Toll-Free: 1-800-621-9419 • Phone: 678-829-1700 • www.rinnai.us

©2017 Rinnai America Corporation. Rinnai America Corporation continually updates materials, and as such, content is subject to change without notice. Local, state, provincial, federal and national fuel gas codes must be adhered to prior to and upon installation.