



## Technical Bulletin- Vent Termination Addendum

Eco King has found in certain situations that the vent termination needs to be a 90° elbow in place of a 45° elbow. In this instance a 45° vent termination is permitted to be replaced with a 90° vent termination where technicians in the field see fit. See the drawing for reference. Please keep in mind the vent distances and the equivalent lengths for the 90° elbows.

**Venting PART 5.55** The use of ULC S-636 approved PVC/CPVC venting for exhaust is permitted. In cases, where PVC/CPVC approved 636 venting is used, please follow the same vent length limits as for single wall PP. These lengths are posted in Table 3.1. Below outlines how to adapt from boiler connection to PVC/CPVC for exhaust and/or ABC, PVC, etc for air intake.

### Adapters

Eco King Boilers are designed and shipped ideally for use with 80mm/125mm concentric, pipe in pipe, venting connection at the top of the boiler. In cases where twin pipe systems are used, a black O-ring seal on the concentric air intake portion must be used to block air intake. Then the white cap on the separate single pipe air intake must be removed from the boiler and an o-ring seal added. Now the boiler is ready to be used in a two pipe system(refer to Venting Part 3 above). Once these rules are followed, use any 80mm PP to PVC/CPVC adapter (for example, available through Eco King with part number EK PP-3PVC, M&G Duravent 3PPSAD-PVC or thru IPEX), to connect immediately onto the boiler. Pipe size can be reduced to 2" CPVC, but if done, care must be taken to ensure vent length does not exceed max lengths in chart shown in Table 3.1. Then connect the same adapter on air intake side and use ABS, PVC or CPVC for air intake vent run.

### Vent/Air-Intake Pipe Length Determination

Use table 3.1 to determine the maximum pipe length that can be used. The table calculates pipe length with regard to use of 90° elbows, and 45° elbows of which both are equivalent to 5ft of straight length pipe. Allowable pipe lengths for vent and air-intake pipes are shown for Natural Gas.

**Table 3.1 Maximum Single Pipe length determination (combined lengths, though exhaust should not exceed ½ these distances, ie. 2" max length is 125 ft, so exhaust should not be longer then 52ft)**

Connection type	Length	Number of Elbows and Equivalent Feet									
		1	2	3	4	5	6	7	8	9	10
Single Pipe 2" PVC/CPVC combined Vent Length	105 ft	100 ft	95 ft	90 ft	85 ft	80 ft	75 ft	70 ft	65 ft	60 ft	55 ft
Single Pipe 3" PVC/CPVC Combined Vent Length	164ft	159 ft	154 ft	149ft	144 ft	139 ft	134 ft	129 ft	124 ft	119 ft	114

**\*\*For installations using PVC vent, the first seven (7) equivalent feet of vent must be PP or CPVC.\*\***

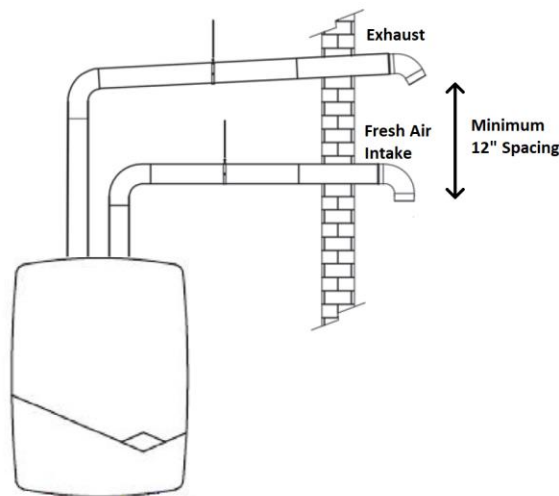


## Venting Part 5.56: Vent Terminations for All Single Pipe Applications

Intake and exhaust pipes should terminate at a rooftop or side wall location. Keep exhaust plumes well away from all building air intakes including those of neighbouring properties.

Single pipe straight, 45 or 90 and concentric terminations are permitted with single pipe systems. Examples below.

All venting must be installed in accordance with the requirements of the jurisdiction having authority: in Canada, Part 8, *Venting Systems* of the B149.1-10 Code and any other local building codes are to be followed. In the USA the National Fuel Gas Code, ANSI 223.1, latest edition, prevails. Where there is a discrepancy between the installation instructions below, and the code requirements, the more stringent shall apply.



For questions or clarification, please contact King Heating Products;

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