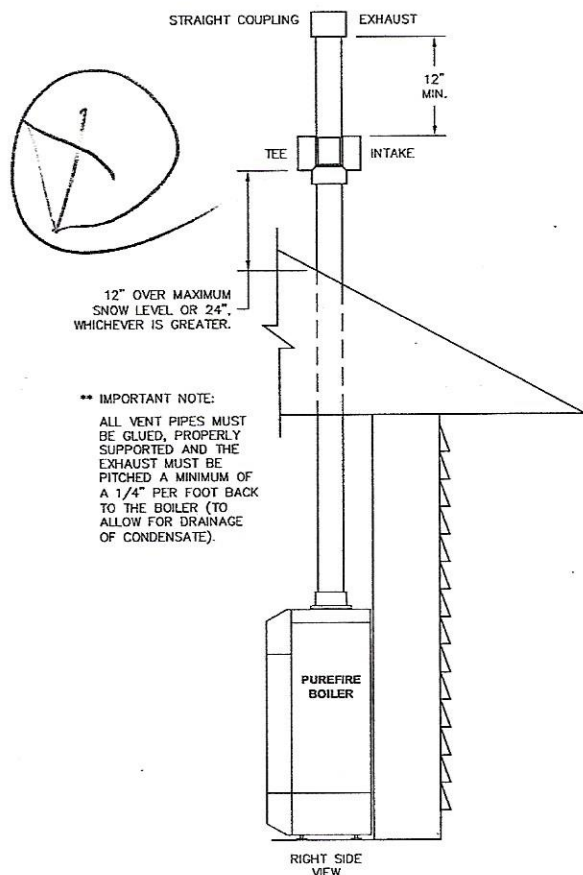
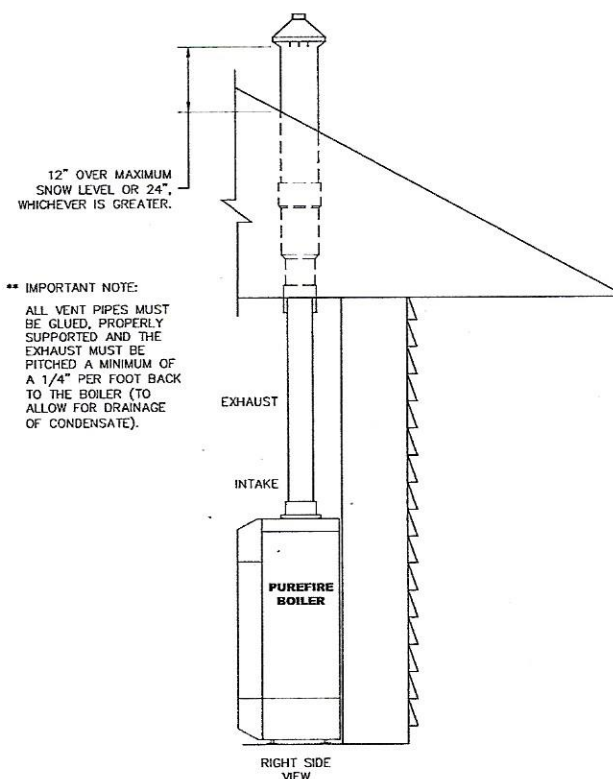


8. Vertical Venting Configuration:
- Figure 3.7 shows the approved venting configuration for vertical venting using the standard fittings supplied.



**Figure 3.7: Standard Vertical Vent Installation**



**Figure 3.8: Concentric PVC Vertical Vent Installation**

- Locate the air intake pipe inlet 12" above the expected snow accumulation on the roof surface or 24" above the roof surface, whichever is greater.
- Locate the end of the exhaust vent pipe a minimum of 12" above the inlet to the air intake pipe.
- Figure 3.8 shows an approved vertical vent configuration using the optional concentric vent termination kit.

**D. EXHAUST VENT/AIR INTAKE PIPE SIZING**

- PUREFIRE boiler models PF-50, PF-80, PF-110, PF-140 and PF-210 are to be installed using 3" Schedule 40 or 80 PVC or CPVC piping using the provided vent adapter. PUREFIRE model PF-399 boilers are to be installed using 4" Schedule 40 or 80 PVC or CPVC piping using the vent adapter provided.
- Concentric polypropylene venting systems can be installed using optional MUGRO™ vent adapters. Table 3.2 shows the appropriate Stock Codes.

**Table 3.2: Stock Codes**

Boiler Model	Stock Code	Boiler Model	Stock Code
PF-50	54155	PF-140	54155
PF-80	54155	PF-210	54236
PF-110	54155	PF-399	54237

Contact your PB Heat, LLC Representative for more information on this option.

- The total combined length of exhaust vent and air intake piping is 200 equivalent feet (60 m).
  - The equivalent length of elbows, tees and other fittings are listed in Table 3.3.

**Table 3.3: Equivalent Length of Fittings**

Fitting Description	Equivalent Length
Elbow, 90° Short Radius	5 feet
Elbow, 90° Long Radius	4 feet
Elbow, 45° Short Radius	3 feet
Coupling	0 feet
Air Intake Tee	0 feet
Stainless Steel Vent Kit	1 foot
Concentric Vent Kit	3 feet

- The equivalent length can be calculated as follows.

**Table 3.4: Sample Equivalent Length Calculation**

	Exhaust	Air Inlet	Total
Straight Length of Pipe	50'	50'	100'
90° Elbows, SR	2 x 5' = 10'	1 x 5' = 5'	15'
45° Elbows, SR		2 x 3' = 6'	6'
Conc. Vent Termination		1 x 3' = 3'	3'
	Total		124'

This is well below the 200 feet maximum equivalent length. If the total is above 200 equivalent feet, alternate boiler locations or exhaust penetration location should be considered.