

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that AMY E ALWARD

Located At 12 VESPER ST

Job ID: 2011-12-2840-HVAC

CBL: 003- K-006-001

has permission to Install Peerless Heating System

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD**

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

| | | | |
|--|--|--|---|
| Job No: 2011-12-2840-HVAC | Date Applied: 12/1/2011 | CBL: 003- K-006-001 | |
| Location of Construction: 12 VESPER ST | Owner Name: AMY E ALWARD | Owner Address: 12 VESPER ST PORTLAND, ME 04101 | Phone: |
| Business Name: | Contractor Name: MICHAEL W MCDONALD HEATING SERVICE | Contractor Address: 160 Fellows ST SOUTH PORTLAND MAINE 04106 | Phone: (207) 318-7079 |
| Lessee/Buyer's Name: | Phone: | Permit Type: HVAC | Zone: R-6 |
| Past Use: Single Family Dwelling | Proposed Use: Same: Single Family Dwelling - to install Peerless Heating System | Cost of Work: \$12,000.00 | CEO District: |
| Proposed Project Description: Install a peerless boiler | | Fire Dept: <i>NA</i> | Inspection: Use Group: <i>R-3</i> Type: <i>HVAC</i> |
| Permit Taken By: Lannie | | Pedestrian Activities District (P.A.D.) | |
| | | Signature: <i>[Signature]</i> | |
| | | Signature: <i>[Signature]</i> | |

| | | | |
|---|---|--|--|
| <p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.</p> | <p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>___ Maj ___ Min ___ MM</p> <p>Date: <i>12/1/11</i></p> | <p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p> | <p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: <i>[Signature]</i></p> |
| | CERTIFICATION | | |

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

| | | | |
|---|---------|------|-------|
| SIGNATURE OF APPLICANT | ADDRESS | DATE | PHONE |
| RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE | | DATE | PHONE |



FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 12 Vespa St Portland Use of Building 3-k-6 Home SF Date 12-1-11
Name and address of owner of appliance Amy Alward 12 Vespa St Portland, Me.

Installer's name and address Mike McDonald Heating Service 160 Fellows St So. Portland, Me. 04106 Telephone (907) 318-7079

Location of appliance:

- Basement
- Attic
- Floor
- Roof

Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name: Peerless

U.L. Approved Yes No

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

The Type of License of Installer:

- Master Plumber # _____
- Solid Fuel # _____
- Oil # _____
- Gas # PNT 5249
- Other _____

Type of Chimney:

- Masonry Lined
Factory built _____
- Metal
Factory Built U.L. Listing # _____
- Direct Vent
Type RVE UL# _____

Type of Fuel Tank

- Oil
- Gas

Size of Tank N/A

Number of Tanks N/A

Distance from Tank to Center of Flame N/A feet.

Cost of Work: \$ 11694.86

Permit Fee: \$ 140

RECEIVED
DEC 1 2011
Dept. of Building Inspections
City of Portland Maine

Approved

Approved with Conditions

Fire: _____

Ele.: _____

Bldg.: _____

See attached letter or requirement

Inspector's Signature

Date Approved

Signature of Installer [Signature]

White - Inspection Yellow - File Pink - Applicant's Gold - Assessor's Copy



CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

12.1 20 11

Received from

MacDonald

Location of Work

1208 Spr

Cost of Construction \$

\$

Building Fee:

Permit Fee

\$

Site Fee:

Certificate of Occupancy Fee:

Total:

140

Building (1L)

Plumbing (15)

Electrical (12)

Site Plan (U2)

Other

ADAC

CBL:

3.26

Check #:

1394

Total Collected \$

140

**No work is to be started until permit issued.
Please keep original receipt for your records.**

Taken by:

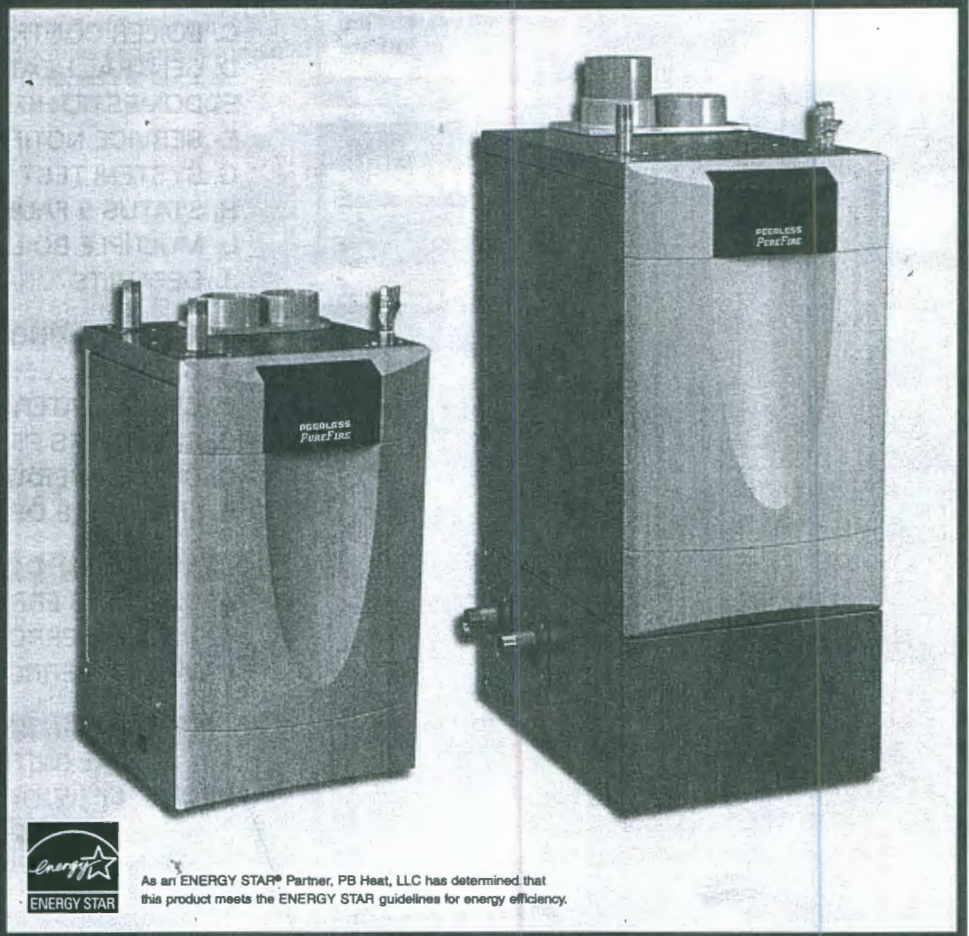
S. J. A.

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy

PEERLESS[®] PUREFIRE[®]

Gas Boilers

PF-50 PF-80 PF-110 PF-140 PF-210 PF-399



As an ENERGY STAR[®] Partner, PB Heat, LLC has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

**Installation,
Operation &
Maintenance
Manual**



PeerlessBoilers.com

C. ACCESSIBILITY CLEARANCES

1. The *PUREFIRE* boiler is certified for closet installations with zero clearance to combustible construction. In addition, it is design certified for use on combustible floors.
2. Figure 1.1 shows the minimum recommended clearances to allow reasonable access to the boiler for Models PF-50, PF-80, PF-110 and PF-140. For Models PF-210 & PF-399, Figure 1.2 shows the minimum recommended accessibility clearances. However, Local codes or special conditions may require greater clearances.

D. COMBUSTION AND VENTILATION AIR

1. The *PUREFIRE* boiler is designed only for operation with combustion air piped from outside the building (sealed combustion). PVC pipe must be supplied and connected between the air inlet connection and an outside wall or roof. Reference Section 3 for vent and air inlet piping requirements.
2. No additional combustion or ventilation air is required for this appliance.

⚠ DANGER

Do not install this boiler on carpeting.

3. Refer to Section 3 of this manual, Venting, for specific instructions for piping combustion air.

E. PLANNING THE LAYOUT

1. Prepare sketches and notes showing the layout of the boiler installation to minimize the possibility of interferences with new or existing equipment, piping, venting and wiring.
2. The following sections of this manual should be reviewed for consideration of limitations with respect to:
 - a. Venting and Air Inlet Piping: Section 3
 - b. Water Piping: Section 4
 - c. Fuel Piping: Section 5
 - d. Condensate Removal: Section 6
 - e. Electrical Connections: Section 7
 - f. Boiler Control: Section 8
 - g. Boiler Dimensions and Ratings: Section 12

⚠ WARNING

This boiler is certified as an indoor appliance. Do not install this boiler outdoors or locate where it will be exposed to freezing temperatures.

⚠ WARNING

Do not install this boiler where gasoline or other flammable liquids or vapors are stored or are in use.

⚠ WARNING

Do not install this boiler in the attic.

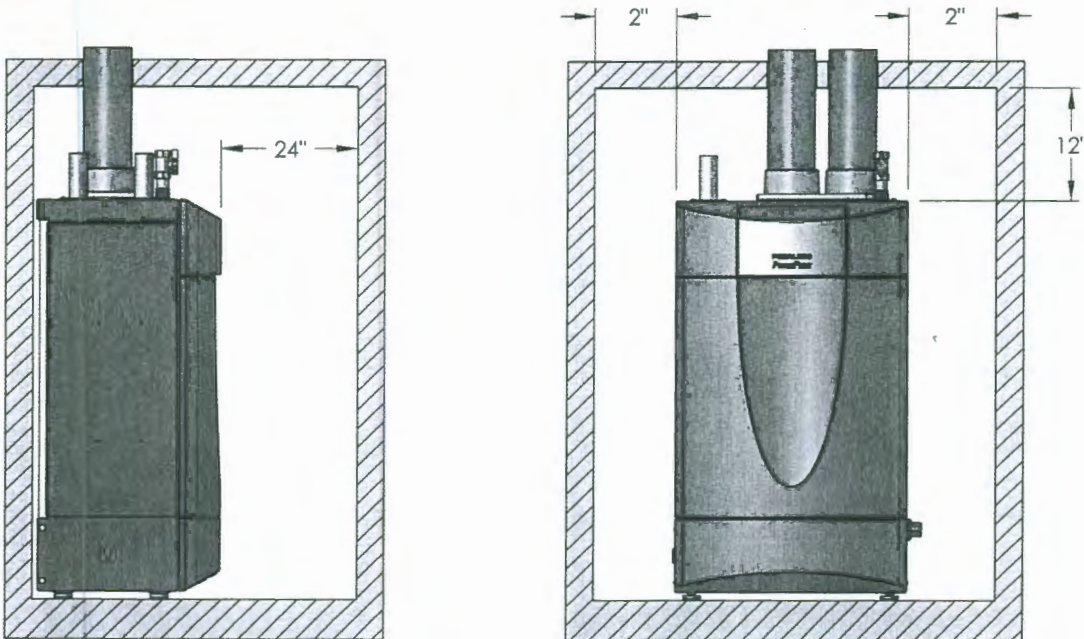


Figure 1.1: Minimum Accessibility Clearances - PF-50, PF-80, PF-110 & PF-140

PREINSTALLATION

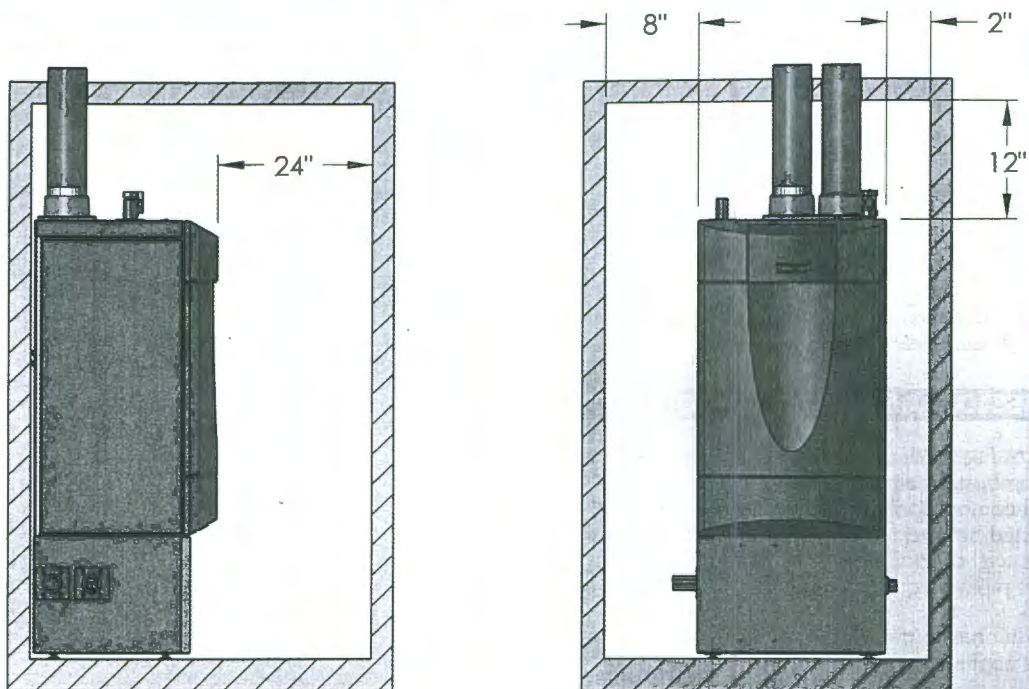


Figure 1.2: Minimum Accessibility Clearances - PF-210 & PF-399

- d. If the vent pipe and air inlet pipe terminations penetrate the wall at the same level the minimum distance between them is 8" center-to-center.
- e. For multiple boiler installations, the minimum horizontal distance between the inlet of one boiler to the exhaust of an adjacent boiler is 8" center-to-center. In addition, the minimum vertical distance between the exhaust and air inlet is 6". See Figure 3.1 for an illustration.

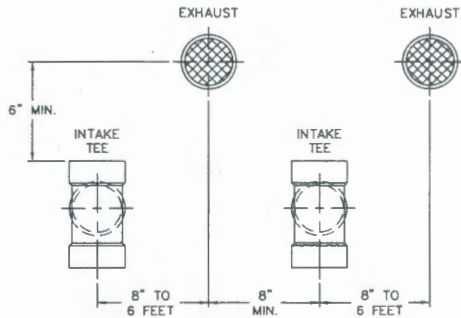


Figure 3.1: Vent Pipe Spacing for Multiple PUREFIRE Boilers

- f. The exhaust outlet of the vent pipe should not be angled any more than 5° from horizontal.
- g. Precautions should be taken to prevent recirculation of flue gases to the air inlet pipe of the boiler or other adjacent appliances.

7. Sidewall Venting Configuration:

- a. See Figure 3.2 for an illustration of clearances for location of exit terminals of direct-vent venting systems.
 - This boiler vent system shall terminate at least 3 feet (0.9 m) above any forced air inlet located within 10 ft (3 m). Note: This does not apply to the combustion air intake of a direct-vent appliance.

- Provide a minimum of 1 foot (30 cm) distance from any door, operable window, or gravity intake into any building.
- Provide a minimum of 1 foot (30 cm) clearance from the bottom of the exit terminal above the expected snow accumulation level. Snow removal may be required to maintain clearance.
- Provide a minimum of 4 feet (1.22 m) horizontal clearance from electrical meters, gas meters, gas regulators, and relief equipment. In no case shall the exit terminal be above or below the aforementioned equipment unless the 4 foot horizontal distance is maintained.
- Do not locate the exhaust exit terminal over public walkways where condensate could drip and create a hazard or nuisance.
- When adjacent to public walkways, locate the exit terminal at least 7 feet above grade.
- Do not locate the exhaust termination directly under roof overhangs to prevent icicles from forming or recirculation of exhaust gases from occurring.

⚠ CAUTION

Condensing flue gases can freeze on exterior building surfaces which may cause discoloration and degradation of the surfaces.

- Provide 3 feet clearance from the inside corner of adjacent walls.
- b. Figure 3.3 and 3.4 show approved sidewall venting configurations using the standard fittings supplied.
- c. Figure 3.4 is only approved for locations in which the outdoor temperature is above -5°F (-21°C) in accordance with ASHRAE 90A-1980 recommendations.
- d. Figures 3.5 and 3.6 show approved sidewall vent configurations using optional vent termination kits.

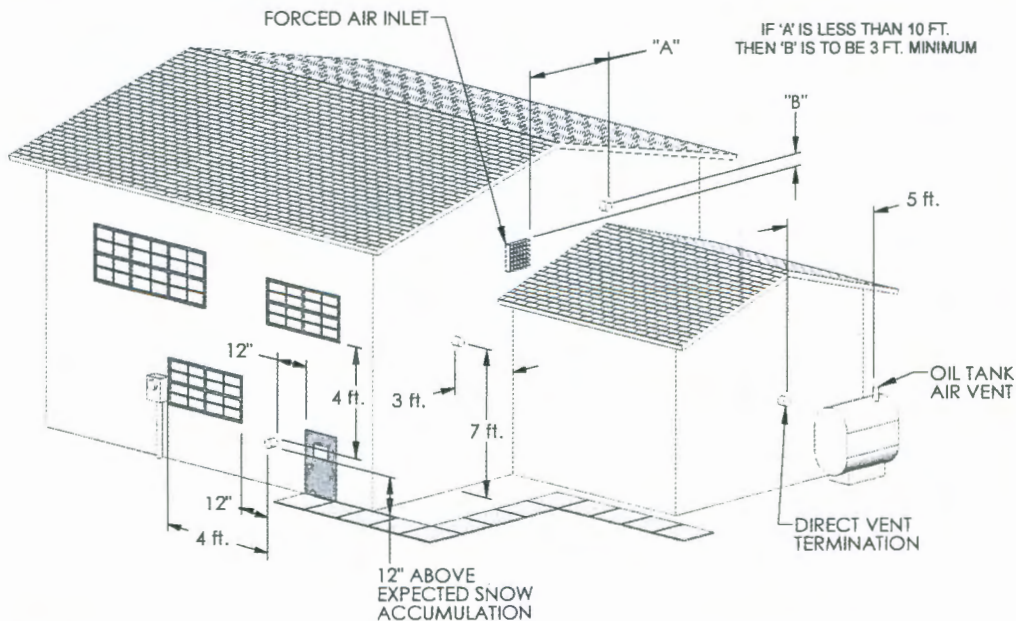


Figure 3.2: Exit Terminal Location for Mechanical Draft and Direct-Vent Venting Systems

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

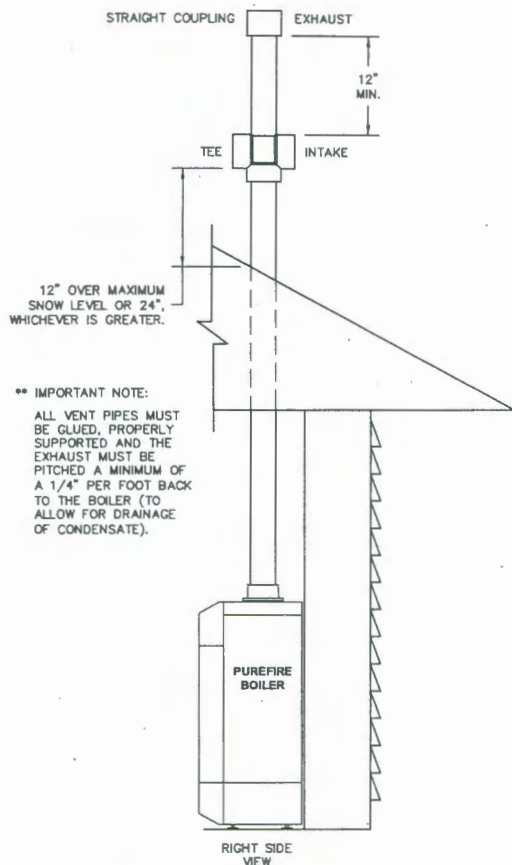


Figure 3.7: Standard Vertical Vent Installation

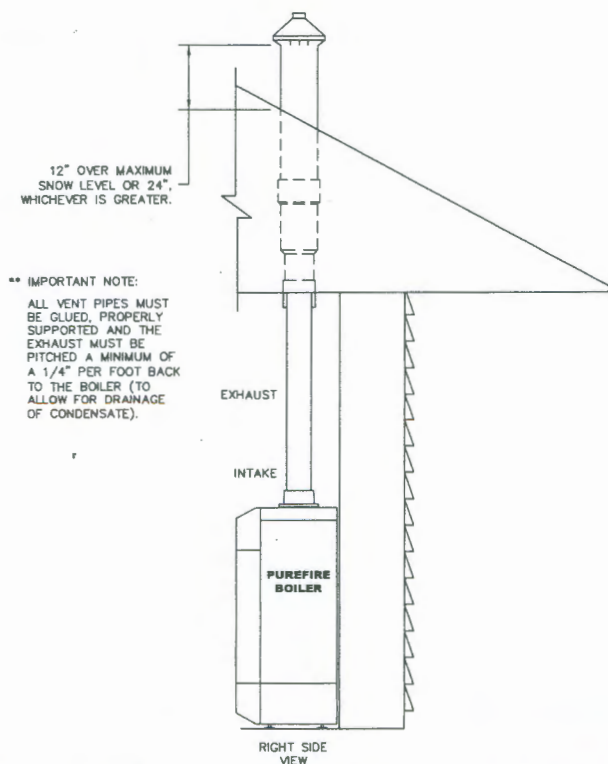


Figure 3.8: Concentric PVC Vertical Vent Installation

- b. 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.
 c. Locate the end of the exhaust vent pipe a minimum of 12" above the inlet to the air intake pipe.
 d. Figure 3.8 shows an approved vertical vent configuration using the optional concentric vent termination kit.

D. EXHAUST VENT/AIR INTAKE PIPE SIZING

1. 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.
2. 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.

3. The total combined length of exhaust vent and air intake piping is 200 equivalent feet (60 m).
 - a. 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 |

- b. 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.