

Installation & Maintenance Instructions



This symbol on the product means the product is listed by Underwriters Laboratories, Inc.

AMERIVENT® Pellet Vent

Model PSV

For use with listed pellet-fired appliances having continuous flue gas temperatures not exceeding 570°F.

A MAJOR CAUSE OF VENT-RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIRSPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS PELLET VENT BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

Approvals and Listings

AmeriVent Pellet Vent systems meet the requirements of UL 641 “Type L Low-Temperature Venting Systems” when installed in accordance with these installation instructions. AmeriVent Pellet Vent systems and Pellet Vent Chimney Liner systems meet the requirements of UL 1777 “Chimney Liners” when installed in a masonry chimney in accordance with these installation instructions. AmeriVent Pellet Vent is approved, accepted or listed by UL, NFPA, ANSI, and most model and local building codes. Contact the local building authority or fire official about any restriction and installation requirements in your area. All necessary permits should be obtained, and installation inspections should be arranged prior to installing any new appliance or vent system.



General Installation Guidelines

AmeriVent Pellet Vent and Chimney Liners

AmeriVent Pellet Vent and Chimney Liners are designed to be installed as complete systems. Installing or using our pellet vent or chimney liners or parts of either in ways other than specified in our installation instructions may be hazard. Therefore, these parts must be installed exactly as show in these instructions.

Make sure the arrow on the parts is pointing up or away from the appliance.

Inspect all components before installation, and do not attempt to install any part that appears damaged.

After reading these instructions, if you have any doubt about your ability to complete the installation in a workmanlike manner, arrangements for a professional installation should be made.

We recommend the use of gloves and protective eyewear when handling sheet metal parts.

AmeriVent Pellet Vent Model PSV

Portions of Pellet Vent that extend through accessible spaces are to be enclosed to:

1. Maintain the 3-inch minimum clearance.
2. Avoid personal contact with the vent.
3. Avoid damage to the vent.

AmeriVent Flexible Chimney Liner Model PSV-*-F

(* Add length to complete part number.)

For installations inside of a masonry chimney, do not enclose with combustible materials, and do not pass through walls, floors or ceilings.

Mobile Home Installations

There are special regulations governing mobile home installations that may be different from conventional installations. The appliance should be listed for installation in mobile homes with very specific instructions for such installations. The mobile home sections of the appliance instructions must be followed exactly for installation in a mobile home.

Appliances

Type of Appliance

The AmeriVent Models PSV are specifically designed and listed for use with listed pellet-fired appliances having continuous flue gas temperatures not exceeding 570°F. Models PSV are also suitable for use with gas and oil appliances listed for use with Type L venting systems and where Type B gas vents are permitted.

The appliance must be installed and operated according to the terms of the appliance listing and the manufacturer's installation instructions.

Vent Sizing

Consult the appliance manufacturer instructions for their specific vent installation requirements. Pellet Vent should be at least as large as the flue outlet of the appliance or the size recommended by the appliance manufacturer.

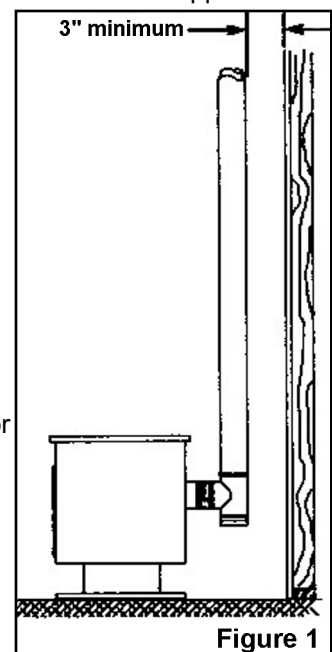
Each pellet-fired appliance requires its own separate and dedicated Pellet Vent, unless both appliances are listed for use with a common vent.

Clearances to Combustibles

AmeriVent Pellet Vent Model PSV

Pellet Vent should be used as both the vent connector and the vent. The vent connector is the portion of the vent system that is located in the same room as the appliance. The vent is the portion of the vent system that is not located in the same room as the appliance.

When used as a vent connector, a 3-inch minimum clearance is required between the Model PSV and any combustible material (Figure 1). The vent connector should not be enclosed. Noncombustible materials may be placed on nearby combustible walls or between the connector and combustible walls in accordance with NFPA 211 or local building codes. The appliance must be listed and will have definite minimum clearances to combustibles. These minimum clearances for the appliance must be maintained.



Pellet Vent may pass through a combustible wall by using a Wall Thimble (PSV-WT-BK, Figures 16 and 17). The vent may pass through the first combustible floor or ceiling by using a Ceiling Support (PSV-CS-BK, Figure 7) or Roof Support (PSV-RS-BK, Figure 10). If the vent passes through additional floors or ceilings, it must be firestopped (Figure 2). The firestop must be noncombustible and effectively close the opening between the outer wall of the pipe and the hole in the structure.

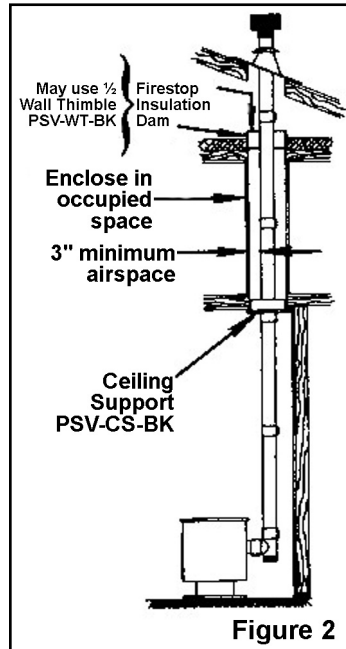


Figure 2

The vent may be enclosed by combustible construction. When enclosed, 3-inch minimum airspace clearance is required between the Model PSV and any combustible material. Do not put any type of insulation within the required 3-inch airspace. Where the vent passes through the attic space, it should be enclosed or dammed to prevent loose fill insulation from impinging into the 3-inch airspace clearance (Figures 2 and 11).

**AmeriVent Flexible Chimney Liner
Model PSV-*-F**

(* Add length to complete part number.)

The Flexible Chimney Liner is for use only in a masonry chimney. The liner is tested and listed for zero clearance between the liner and the inside of the masonry and zero clearance between the outside of the masonry and combustibles.

**Assembly
Instructions**

**Stove
Connection**

The Stove Adapter (PSV-SA) is designed for easy connection between the vent

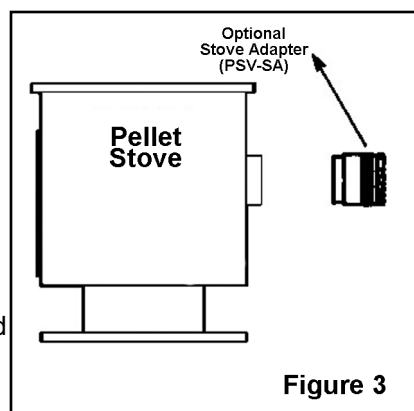


Figure 3

inner wall and the appliance collar (Figure 3). Follow the appliance manufacturer's instructions and connect the stove adapter to the appliance. Pipe Sections or Tees may also be attached directly to the appliance. Be certain that the inner wall of the PSV is connected to the stove collar.

Basic Joint Assembly

1. AmeriVent Pellet Vent pipe and fittings are connected by a secure snap-lock feature. Line up the pipe ends and press together until the couplers snap-lock. The pipes are now firmly connected (Figure 4). Sheet metal screws are not necessary to connect sections together.

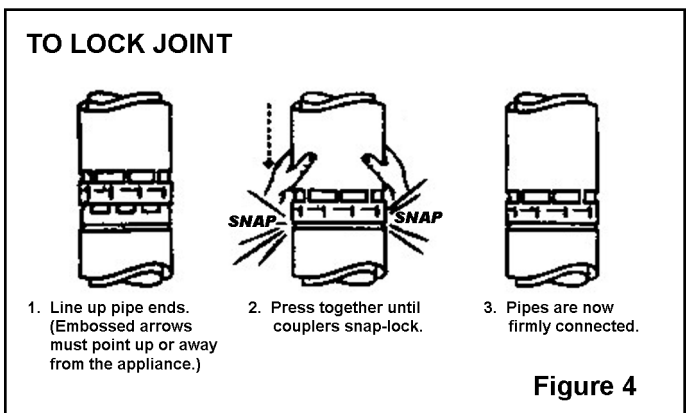


Figure 4

To unlock, pry out the three teeth marked with dots. Rotate the joint while pulling gently apart (Figure 5).

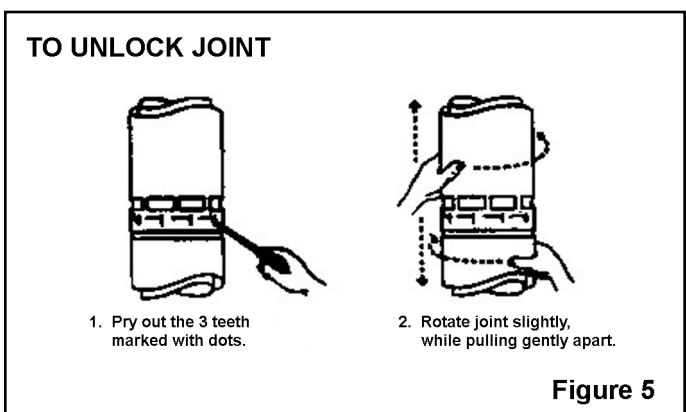
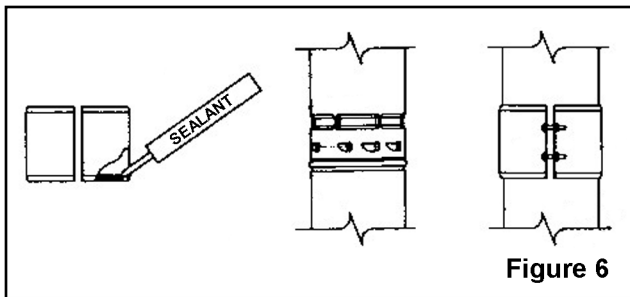


Figure 5

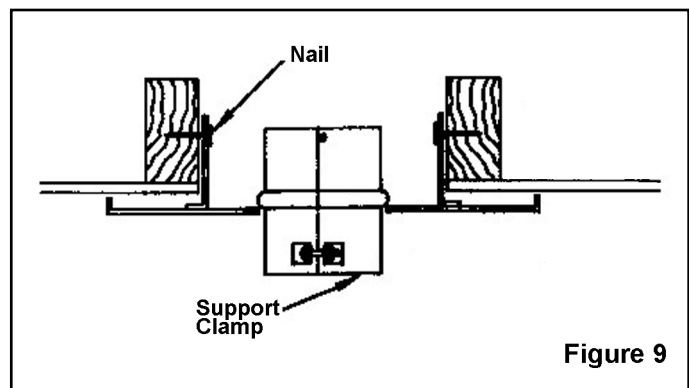
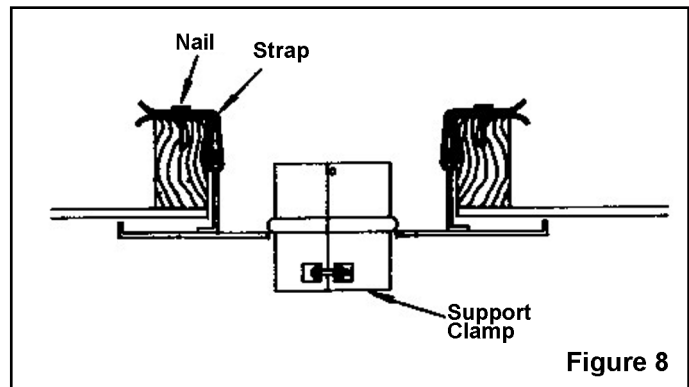
2. The Seal Sleeve (PSV-SS) may be used to cover the joints. If the appliance manufacturer recommends using a sealant to connect the Pellet Vent to the appliance, the same sealant may be used between the inside of the seal sleeve and the vent. Do not use seal sleeves on an exterior vertical vent without sealant.

- A. Run a continuous bead of sealant around both ends of the seal sleeve (Figure 6).



- B. Position the sleeve over the pipe joint. The fasteners may be located toward the wall, corner or floor for a better appearance. If the sleeve is installed on a horizontal run outdoors, the fasteners should be on the bottom to facilitate rain water runoff.
- C. Tighten the fasteners in an alternating pattern until the sleeve is snug.
- D. Wipe off any excess sealant.

1. Insert the support clamp into the support. The screw should be below and the bead above the support bottom (Figures 8 and 9).
2. Provide a 10³/₄-inch, boxed-in opening through the ceiling.
3. Secure the ceiling support as shown in Figure 8. Install strapping (minimum 3/4 inch, 28-gauge) through all four slots. As an alternate method, nail at all four slots as shown in Figure 9.



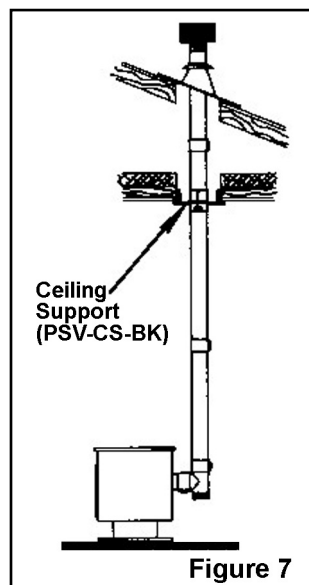
Locate Appliance

The appliance must be installed at the minimum clearances specified by the manufacturer.

Locate the appliance to avoid cutting joists, rafters or wall studs if possible. Offsets may be used to go around these structural members. If structural members must be cut, construct headers between the nearest uncut members. Never cut the ridge board at the peak of a roof.

Flat Ceiling, Ceiling Support Installation

The Ceiling Support (PSV-CS-BK) is capable of supporting a maximum of 30 feet of Pellet Vent. If additional height is necessary, use Tee Support Brackets (PSV-TSB) as resupports. The ceiling support will fit a 10³/₄-inch round or square opening (Figure 7).



4. Provide boxed-in openings and firestopping at all additional floors or ceilings (Figure 2).
5. Cut an opening through the roof. The opening should be plumb to the ceiling opening and large enough to provide a 3-inch clearance to the vent. The opening may be round or square for flat roofs and oval or rectangular for pitched roofs. Frame in the opening.
6. Assemble the vent through the support clamp, and tighten the clamp around the vent.
7. Assemble the vent up to the roof level.
8. Refer to the **Flashing, Storm Collar and Cap** section of these instructions to finish the installation above the roof.

Sloping Ceiling, Roof Support Installation

The Roof Support (PSV-RS-BK) is capable of supporting a maximum of 30 feet of Pellet Vent. The roof support is 10½ inches square and will fit through a rectangular-shaped opening. One side of the opening will be 10⁵/₈ inches, and the other will depend upon the pitch of the ceiling--the steeper the pitch, the wider the opening. The support does not need to protrude below the ceiling on all four sides, provided that the required 3-inch clearance is maintained (Figures 11 and 12).

The roof support may be nailed to ceiling joists and terminate inside an attic space. This type of installation may not require any cutting of the support. Use this method for flat ceilings to provide an insulation dam in the attic space (Figure 11).

The roof support also may be used to pass through both the ceiling and the roof. This type of installation involved trimming the support to match the roof pitch and nailing the support to roof framing (Figures 10 and 14). Use this method also whenever attic space is limited, such as near eaves where the ceiling and roof converge (Figure 12).

1. Insert Support Clamp into the support. The screw should be below and the bead above the support bottom (Figure 13).
2. Lay out and cut the opening in the ceiling. Use a carpenter's square and a level, and measure carefully to develop the layout. Make sure the support is level and fits the opening (Figures 11 and 12).

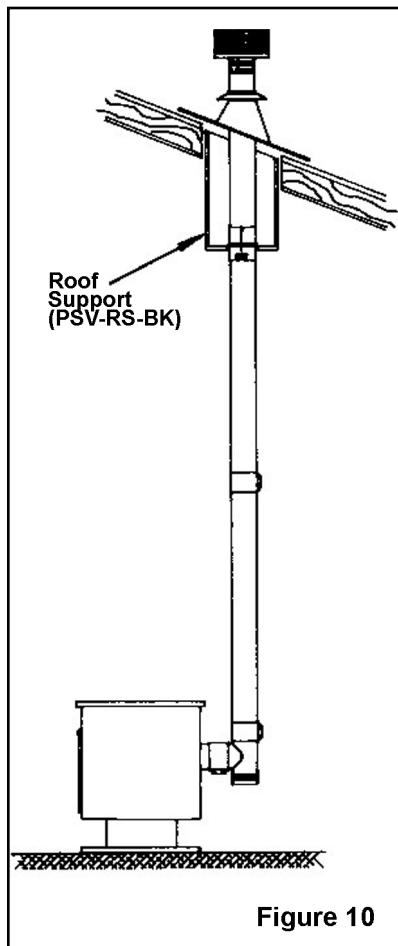


Figure 10

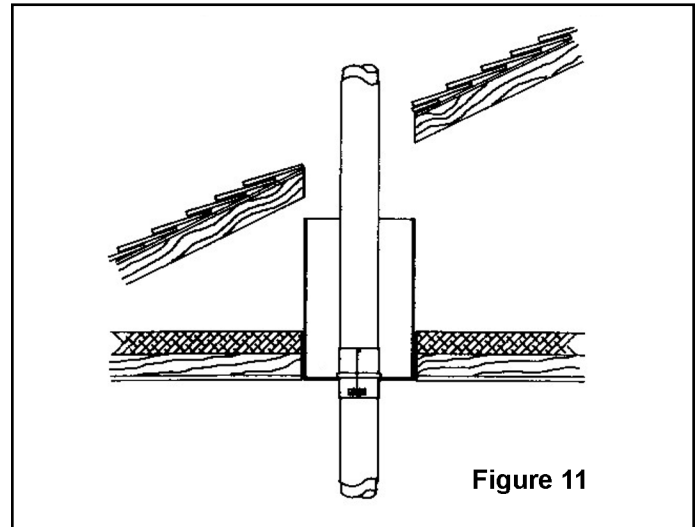


Figure 11

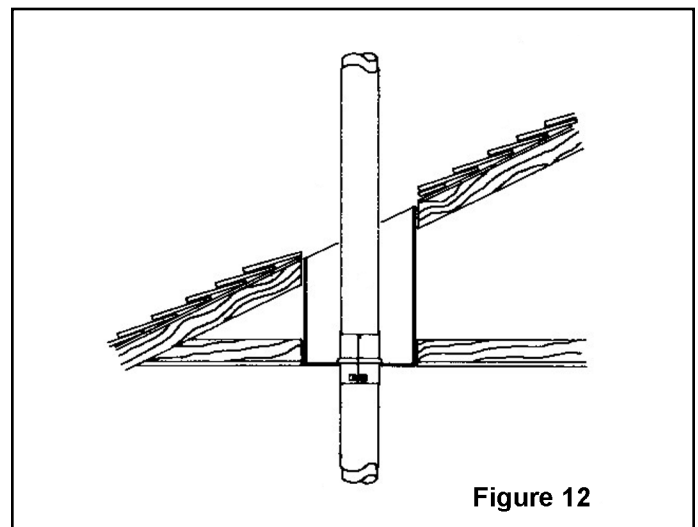


Figure 12

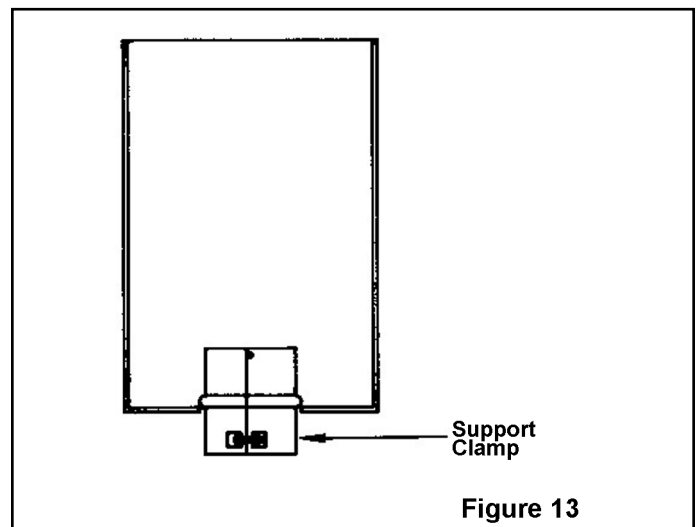
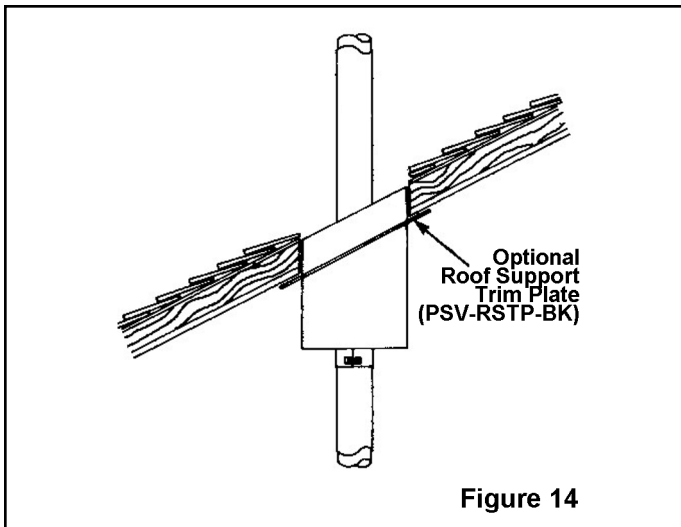


Figure 13

3. Lay out and cut an opening through the roof. If the support is to pass through the roof, cut a rectangular opening with the corners plumb to the ceiling opening. If the support does not pass through the roof, cut either an oval or a rectangular opening with at least a 3-inch clearance to the vent. Frame in both openings on all four sides.
4. Insert the support through the opening in the structure, making sure the support is level. Nail through all four sides and into the framing. Use a minimum of two 8d nails on each side of the support.
5. If the top of the support extends above the roof, it must be trimmed and finished flush with the roof. Cut a slot in all four corners. Cut the slots down to the level of the roof surface. Trim each side to be either flush with or about $\frac{3}{4}$ inch above the roof surface. A $\frac{3}{4}$ -inch-wide lip may be folded flat onto the roof. Use roofing nails and mastic to secure the lip flush with the roof.
6. Assemble the vent through the Support Clamp and tighten the clamp around the vent.
7. Install the optional Roof Support Trim Plate (PSV-RSTP-BK) to cover the opening between the ceiling and the support (Figure 14).

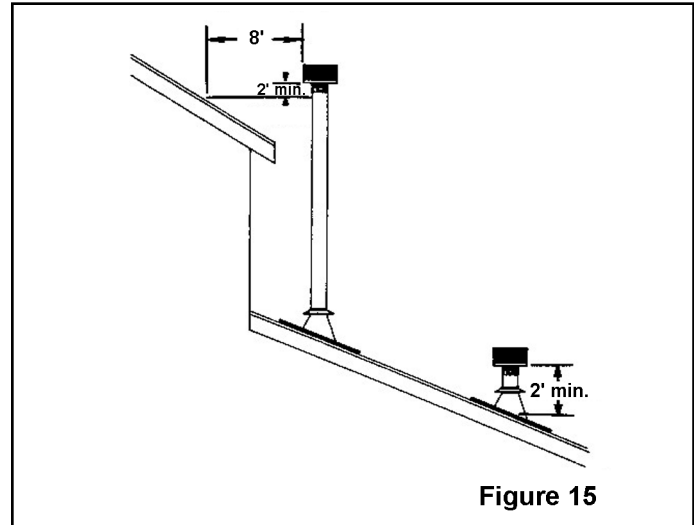


8. Refer to the **Flashing, Storm Collar and Cap** section of these instructions to finish the installation above the roof.

Note: If the support passes through the roof, we recommend using a 3EFFU or 4EFFU flashing with wider bases than the standard 3EF or 4EF flashings.

Flashing, Storm Collar and Cap

1. Assemble the vent to a height of at least 2 feet above the roof and at least 2 feet higher than any portion of the building within 8 feet (Figure 15).



2. Place the roof flashing suitable for the roof pitch over the vent pipe. Use care to maintain the 3-inch clearance, and nail the flashing to the roof. The top edge and the sides of the flashing will be covered with roofing, and the bottom edge should be on top of the roofing. Nail through the top and sides of the flashing. Do not nail along the bottom edge.
3. Finish the roofing around the flashing. Cover the sides and upper edge with roofing material.
4. Slide the Storm Collar (ESC) down over the vent. The storm collar should be in contact with the top of the flashing. Apply a bead of mastic around the vent at the top of the storm collar.
5. Install the Vertical Rain Cap (PSV-C). The cap installs in the same manner as outlined in the Basic Joint Assembly section of these instructions. **DO NOT** use a sealant or a Seal Sleeve at the cap joint. The cap should be removable for cleaning and future inspection.

Through-the-Wall, Wall Thimble Installation

1. Determine the location where the vent will pass through the wall. Try to avoid cutting a wall stud.
2. Cut a $10\frac{3}{4}$ -inch round or square opening through the wall.

3. Install the Wall Thimble (PSV-WT-BK) through the opening in the wall with the black-painted surface on the inside wall. Screw both trim plates in place. Use a waterproof mastic between the outer plate and the exterior wall.
4. Assemble the vent from the appliance and pass through the thimble. An Adjustable Length (PSV-12A) may be used to make up odd lengths between the appliance and the wall thimble.

Vertical Termination, Tee Support Bracket Installation

1. Install a Tee (PSV-T) or Double Tee (PSV-DT) branch to the section of vent on the outside wall. The tee must be at least 3 inches from the wall (Figure 16).
2. Fasten the Tee Support Bracket (PSV-TSB) to the wall 4 to 8 inches above the top of the tee. Use lag screws or toggle bolts and secure all three legs of the tee support to the wall.
3. Install a section of pipe to the tee, and clamp the Tee Support Bracket around the pipe.
4. Assemble the vent up along the side of the wall.
5. Use a Wall Band (PSV-WB) within 4 feet from the tee support and at least every 4 feet thereafter (Figure 16).
6. Refer to the **Flashing, Storm Collar and Cap** section of these instructions to finish the installation above the roof.

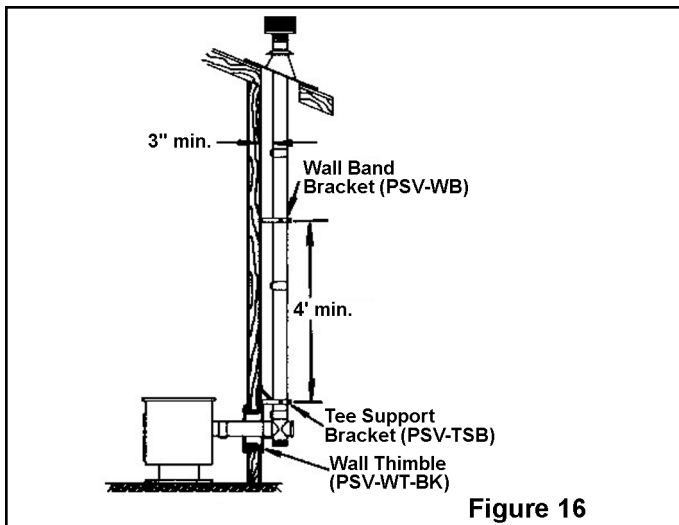


Figure 16

Horizontal Termination, Horizontal Cap Installation

1. The Horizontal Cap (PSV-HC) must extend at least 12 inches away from the exterior house wall. Therefore, the end of the vent must be at least 4½ inches away from the house before the cap is installed (Figure 17).

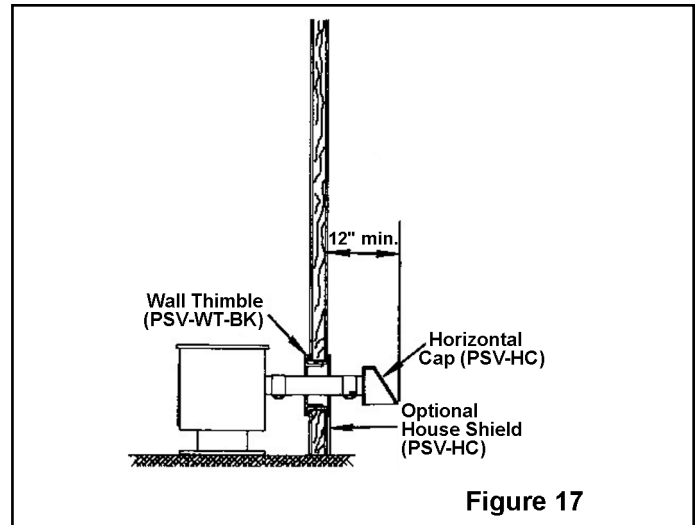


Figure 17

2. The cap installs in the same manner as outlined in the Basic Joint Assembly section of these instructions. **DO NOT** use sealant at the cap joint. The cap should be removable for cleaning and inspecting the vent. To facilitate removal, the cap may be installed as follows.
 - A. Use a pair of pliers and flatten only the three locking teeth marked with dots on the cap (Figure 18).
 - B. The cap will now snap on and twist off the vent. Make sure the vent is rotated to a position that locks the cap when the outlet is level.
 - C. Clamp a Seal Sleeve (PSV-SS) over the cap joint. Do not use sealant, and locate the fasteners on the bottom side of the vent.
 - D. Secure the optional House Shield (PSV-HS) to the wall below the thimble (Figure 17.)

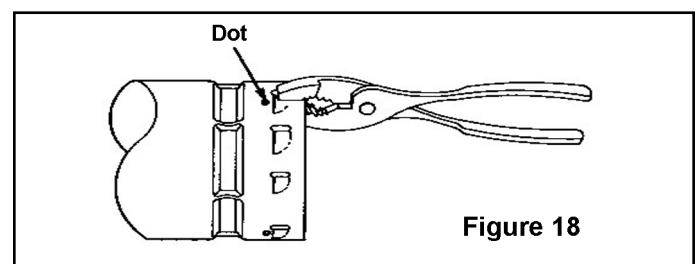


Figure 18

Existing Metal Chimney, Chimney Adapter Installation

Some listed pellet stoves may use AmeriVent Pellet Vent as a connector between a metal chimney (such as AmeriVent Model HS) and the appliance (Figure 19). Refer to the appliance instructions for specific chimney requirements. The chimney must be installed in accordance with the chimney installation instructions.

If the chimney has been in service, it must be inspected and thoroughly cleaned of soot and creosote, including tar glaze creosote before attachment to Pellet Vent. American Metal Products offers AmeriVent chimney adapters for 6-, 7- and 8-inch I.D. chimneys. Use the proper sized adapter.

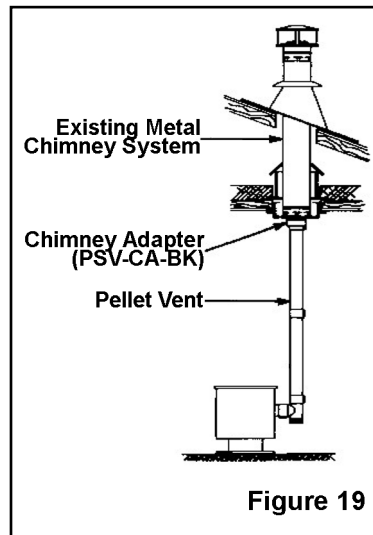


Figure 19

1. The chimney should be installed with the chimney manufacturer's stove pipe connector (Single-Wall Adapter SWA for AmeriVent) below the chimney inlet.
2. Insert the Support Clamp into the Chimney Adapter. The screw should be below and the bead above the bottom of the adapter (Figure 20).
3. Secure the Chimney Adapter (PSV-CA-BK) to the chimney single-wall adapter with the supplied sheet metal screws (Figure 20).

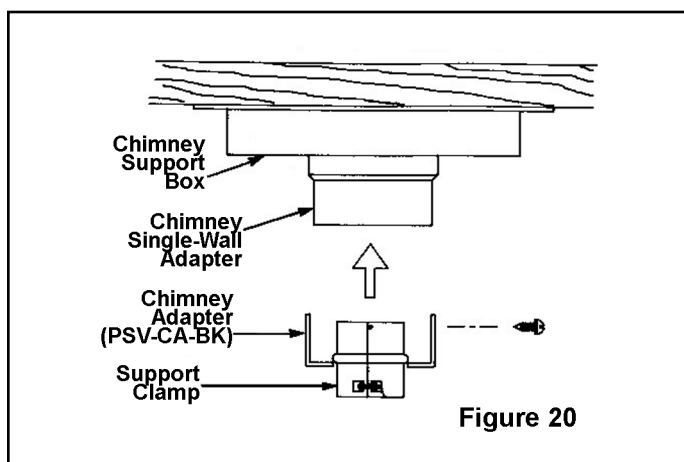


Figure 20

4. Assemble the vent from the appliance and through the support clamp. The appliance manufacturer may require the vent to extend a specific distance into the chimney. Follow both the appliance instructions and the following minimum and maximum requirements.

A. Maximum:

The top of the vent must be at least 4 inches below the top of the chimney cap (Figure 21).

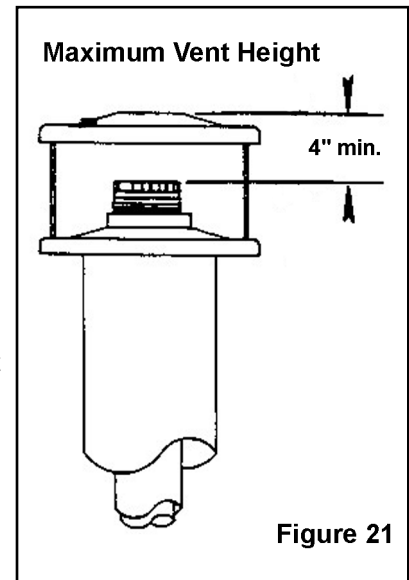


Figure 21

B. Minimum:

The vent must extend above the Chimney Adapter and chimney Single-Wall Adapter to a level that is inside the chimney (Figure 22).

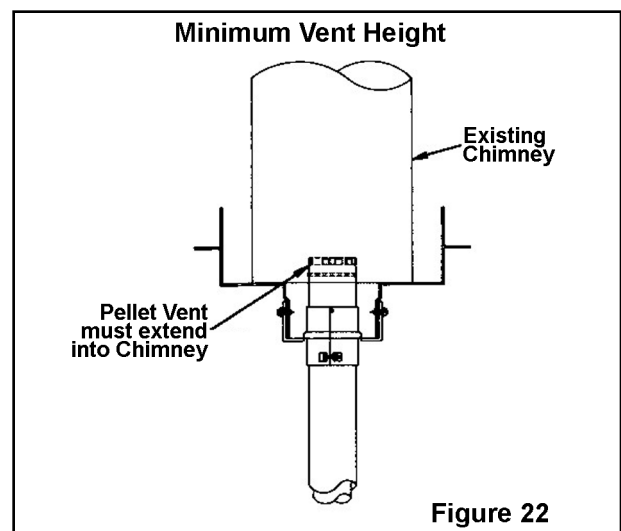


Figure 22

Masonry Chimney Liner

General Installation Guidelines

AmeriVent Pellet Vent and Flexible Chimney Liner may be used to reline masonry chimneys involving two typical situations.

- A. A listed freestanding pellet stove (Figure 23)
- B. A listed pellet-fueled fireplace insert located in an existing fireplace (Figure 24)

The chimney should be examined for cracks, loose or missing bricks, mortar, or any other material that could inhibit installation of the liner. The chimney may be lined or unlined, and should be at least 3½ inches thick. Any crack or void on the outside 3½ inches of masonry must be repaired.

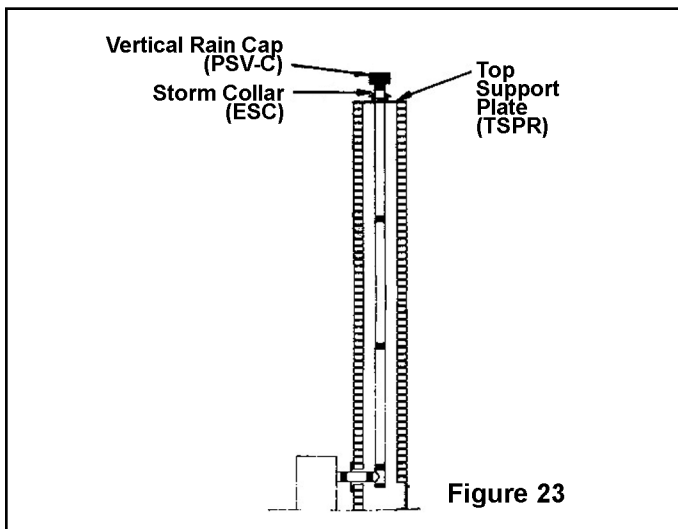


Figure 23

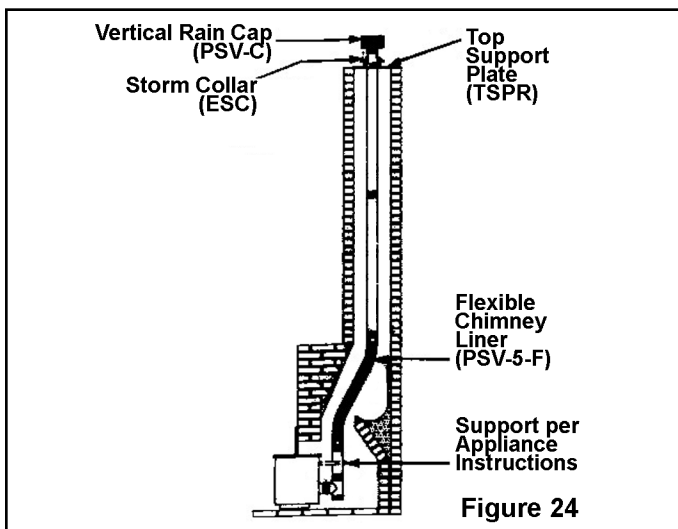


Figure 24

If the chimney was ever used for oil or solid fuels, it must be thoroughly cleaned of soot and creosote, including tar glaze creosote. Consult a certified chimney sweep or professional installer if there is any doubt about the condition of the chimney.

If the chimney serves a fireplace, the fireplace opening must be blocked.

The Pellet Vent and Flexible Chimney Liner may be used in any combination within the chimney, except that the uppermost section must be Pellet Vent.

Insert Installation

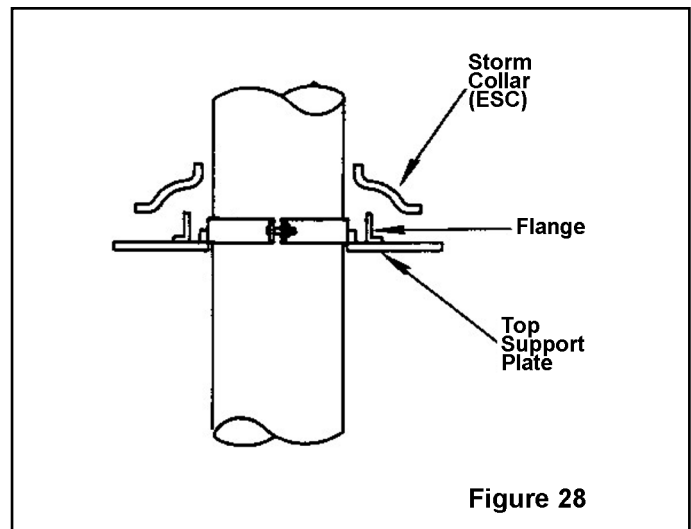
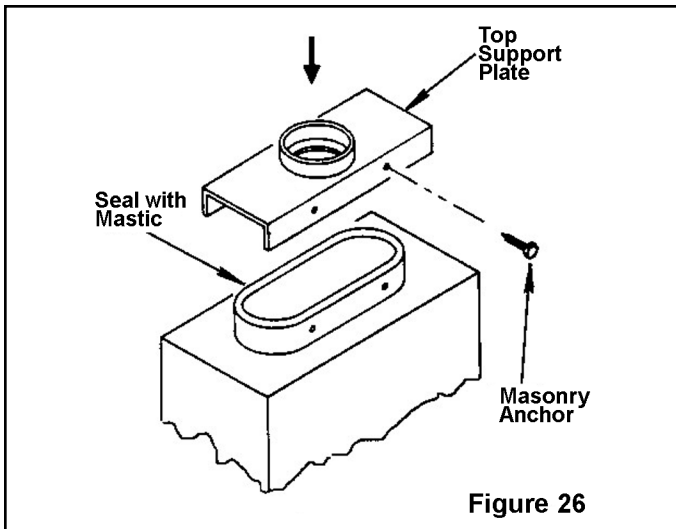
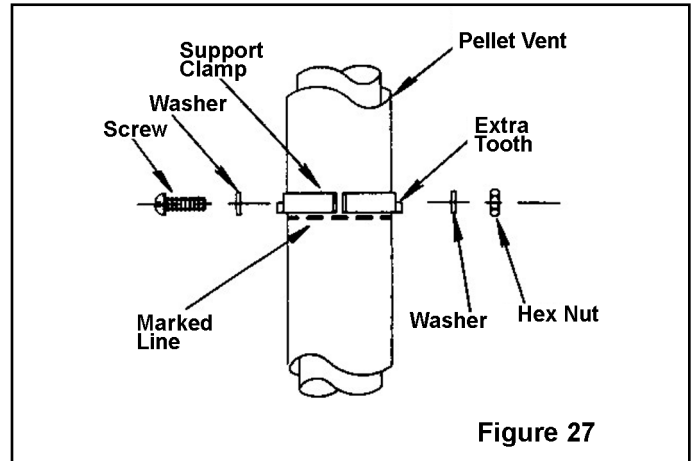
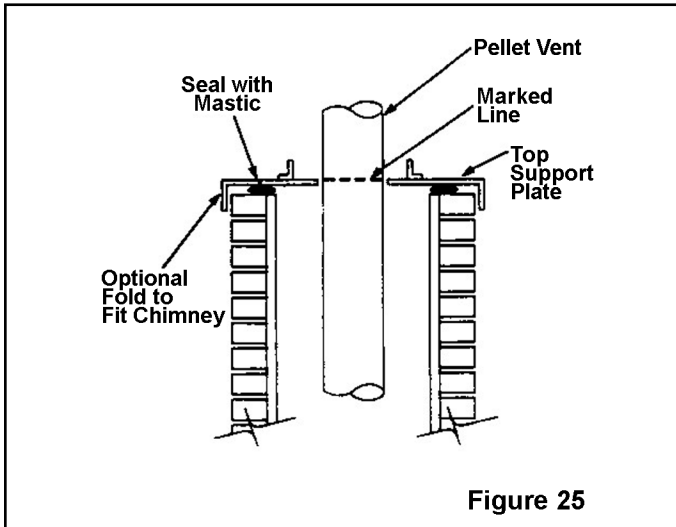
1. Carefully review the appliance instructions for the manufacturer's requirements for connecting the vent system to the appliance. Rear outlet appliances will require that a tee or elbow be connected to the appliance. Usually, a method of attachment and support of this connection will be specified. The elbow or tee should be supported. If in doubt, contact the appliance manufacturer for recommendations (Figure 24).

Top outlet appliances may be connected directly to a section of AmeriVent Flexible Chimney Liner or a Stove Adapter.

2. Working from the top of the chimney, connect the flexible liner to the bottom of a section of Pellet Vent. Add enough sections of vent to drop the flex through the damper opening, and connect to the appliance outlet constructed in Step 1.

The uppermost section of vent should be at least one foot above the top of the chimney.

3. Temporarily support the liner, and slide the Top Support Plate (TSPR) down over the vent. Apply a bead of sealant to the top of the chimney. Center and seat the top support plate to the top of the chimney (Figure 25).
4. Secure the plate with the masonry anchors. If the plate extends over the edge of a clay liner or the chimney, it may be notched and folded to fit (Figures 25 and 26).
5. Connect the flexible liner to the stove outlet or the vent assembly attached to the stove (Figure 24).



Free Standing Appliance Liner Installation

6. Working from above, pull the slack out of the liner and attach the Support Clamps to the vent at the lowest possible position. Use screws, nuts and washers provided to attach the clamps (Figure 27).

Note: Make sure the screws supporting the weight of the liner are tightly fastened.

7. Refer to the **Flashing, Storm Collar and Cap** section of these instructions, and install a storm collar and cap above the support plate (Figures 24 and 28).
8. Refer to the appliance instructions, and add the trim piece between the fireplace and the appliance.

1. Determine the final position for the appliance, and mark the location where the vent will penetrate the masonry wall of the chimney. The opening should be located above, not directly behind the appliance, unless the appliance is listed for such application.
2. Carefully break out an opening in the masonry wall. The opening must be large enough for the vent and for the installer to hold the liner during assembly to the horizontal connector.

Note: If conditions permit, the construction of a clean-out or access door on the opposite side of the chimney is recommended.

3. Measure the distance from the center of the opening to the top of the chimney.

The length of Pellet Vent required will equal this measurement. Add 12 inches for the minimum height above the chimney and 1 inch for the overlap of each joint.

4. The bottom piece of the liner system will be a Pellet Vent Tee (PSV-T) with both an inner and outer tee cap.

Slip the inner tee cap over the inner wall, and attach the outer tee cap with sheet metal screws.

5. Working from the top of the chimney, connect the tee assembly to the bottom of a section of Pellet Vent. Add sections of vent, and lower the tee until the horizontal opening of the tee is centered to the masonry opening.

6. Hold the liner in the correct position. Mark a line even with the top of the chimney on the uppermost pipe section (Figure 25).

7. Temporarily support the liner and install the Top Support Plate (TSPR) and Support Clamps as outlined in Steps 3 through 6 of the **Insert Installation** section of these instructions.

The bottom of the Support Clamps should be even with the line marked on the liner in Step 6 above (Figure 27).

8. Refer to the **Flashing, Storm Collar and Cap** section of these instructions, and install a storm collar and cap above the support plate (Figures 23 and 28).

9. Use additional pieces of Pellet Vent to assemble the vent connector between the liner and the appliance. Hold the tee securely and snap a section of vent to the horizontal tee branch.

The horizontal section of connector must slope upward a minimum of $\frac{1}{4}$ inch per foot.

The opening in the masonry may be partially filled with high-temperature grout or ceramic fiber insulation. A Vent Collar (EVC) may be used to trim the opening.

IMPORTANT NOTE

If the masonry is covered with a combustible material, the combustible must be cut away to provide a 3-inch minimum clearance to the Pellet Vent connector.

Half of a Wall Thimble (PSV-WT-BK) should be used to cover the opening cut through the combustible.

10. Use an Elbow (PSV-90) and additional sections of Pellet Vent to build the connector to the appliance. Secure to the appliance as outlined in the **Stove Connection** section of these instructions.

**AmeriVent Pellet Vent
Installation Instructions**



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