

Installation and Assembly Instructions

AmeriVent Direct™

DESCRIPTION AND USE

AmeriVent Direct™ is designed to be the vent and air intake system for an approved list of direct vent appliances.

AmeriVent Direct™ materials, design and this instruction manual have been evaluated and listed by Warnock Hersey.

Contact local building or fire officials about restrictions and installation inspection in your area, and obtain required building permits.

Do not install AmeriVent Direct™ without first carefully reading these instructions and the appliance manufacturer's instructions. After reading these instructions, if you still have any doubt about your ability to complete the installation in a safe manner, arrange for a professional installation.

The appliance must be listed for use with American Metal Products' Ameri-Vent Direct. Refer to the appliance manufacturer's label and installation instructions to make sure that the AmeriVent Direct™ system is approved for use with your specific appliance.

AmeriVent Direct™ is for use only with appliances that are certified or listed by a major qualified testing agency such as AGA, CSA, OMNI, UL or Warnock Hersey. The appliance must be listed as one of the following types:

ANSI Z21.50/CGA 2.22 Vented Gas Fireplace

ANSI Z21.88/CGA 2.33 Vented Gas Fireplace Heater

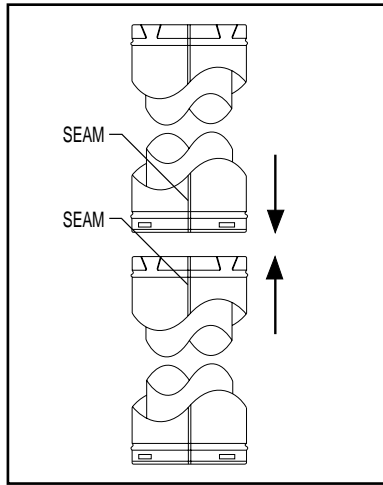
ANSI Z21.86/CGA 2.32 Gravity Direct Vent Wall Furnace or Fan-Type Direct Vent Wall Furnace.



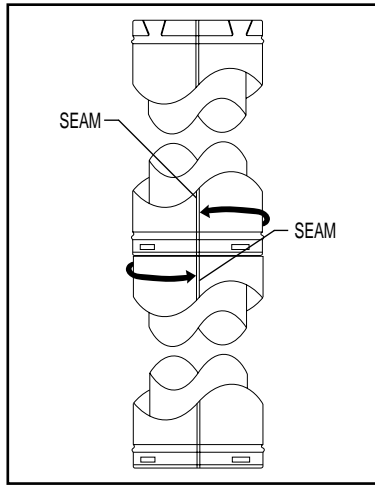
GENERAL INSTALLATION GUIDELINES

1. AmeriVent Direct™ is a complete system, extending from the appliance to the outdoors. Do not use AmeriVent Direct™ parts with components from another manufacturer unless compatibility is specified in the appliance manufacturer's instructions.
2. Each appliance must have its own separate AmeriVent Direct™ system.
3. Always maintain the required minimum (air space) clearances to combustibles. Refer to the appliance manufacturer's instructions for minimum clearance requirements. Do not put any type of insulation within the minimum required clearance distance surrounding the outside of the vent.
4. Approved venting configurations are determined during the testing of each appliance. Refer to the appliance manufacturer's installation instructions for allowable maximum and minimum lengths of vent runs, acceptable number of elbows, and specific details for wall or combustible ceiling penetrations.
5. When installing, make sure the pipe seam on the AmeriVent Direct™ part is NOT permanently left aligned with the seam of the adjoining pipe section.
6. Do not perform any unauthorized modification to any portion of the appliance or vent/intake system.
7. A seal is pre-installed on the inner wall of Ameri-Vent Direct. Sealant is optional on the outer wall, unless specified by the appliance manufacturer or local building codes.
8. Portions of AmeriVent Direct™ passing through accessible spaces, including closets, must be enclosed to maintain the minimum required clearances to combustibles, to avoid personal contact and to prevent damage to the vent.
9. Firestops must be used where vents pass through floors or ceilings.

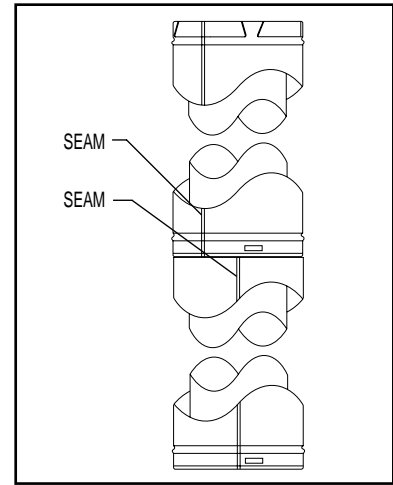
LOCKING INSTRUCTIONS



1. Align pipe ends, make sure the pipe seams are in line.



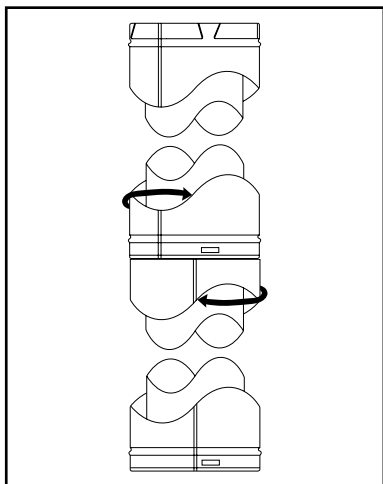
2. Press together until pipes rotate.



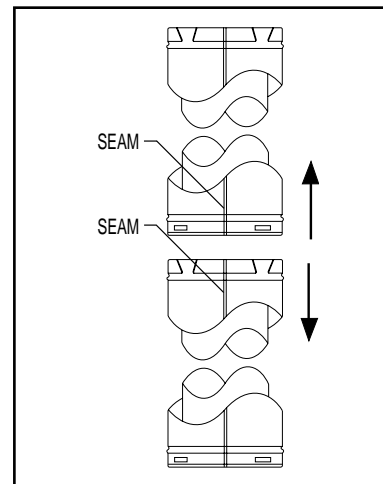
3. Make sure the pipe seam is NOT permanently left aligned with the adjoining pipe seam.

4. Pipes are now firmly connected.

UNLOCKING INSTRUCTIONS



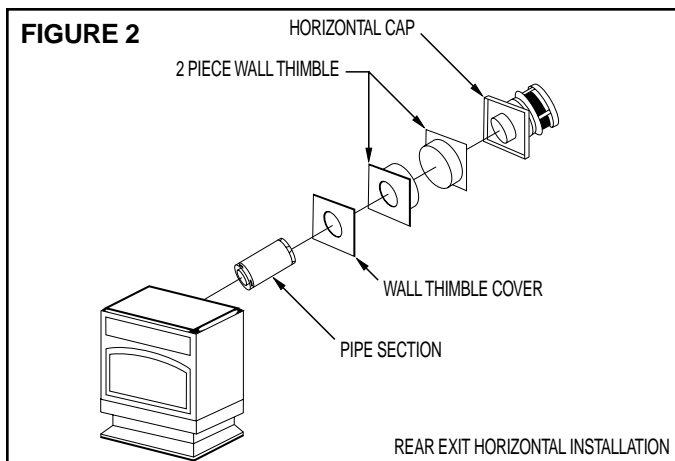
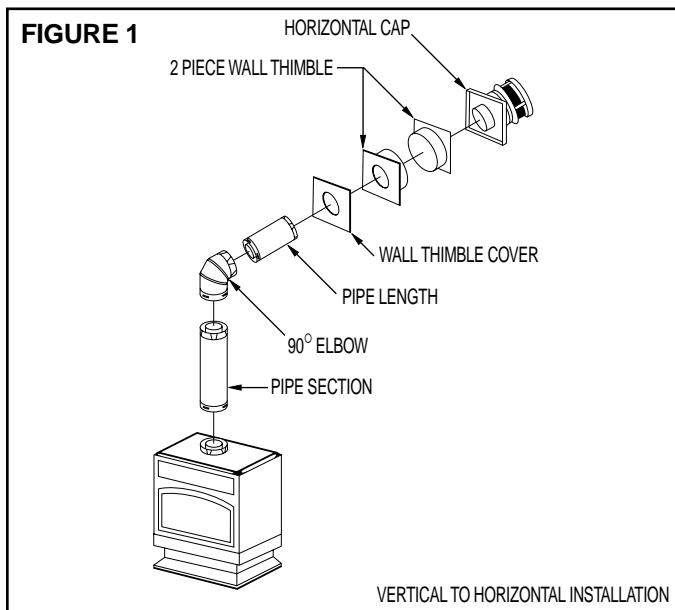
1. Rotate pipes until the pipe seam is aligned with adjoining pipe seam.



2. Pull straight apart to disconnect.

Horizontal Installations

(Figures 1 and 2)



Plan the installation. The appliance must be installed in accordance with national and local codes and the manufacturer's installation instructions. Codes and, in some cases, the appliance manufacturer will dictate the location of the termination. Acceptable venting configurations are dictated solely by the individual requirements of that appliance. See manufacturer's installation instructions for restrictions regarding maximum and minimum vent runs, number of elbows, as well as the relationships between lengths of vent run to vent rise.

Choose an appliance and termination location that agrees with both the codes and appliance manufacturer's requirements. If you have any doubt about conflicting requirements, choose the more conservative installation.

Attach the first section of AmeriVent Direct™ to the appliance. AmeriVent Direct™ fits most standard

appliance start collars used in the market. Check appliance manufacturer's installation instructions to determine if an adaptor is necessary with AmeriVent Direct™. Install the first pipe or elbow section as outlined above.

Elbows and Offsets

AmeriVent Direct™ is available with 45° and 90° elbows. Some vertical outlet appliances require a minimum rise before adding an elbow, while others allow an elbow to be connected directly to the appliance. See the appliance manufacturer's installation instructions for maximum allowable rise and run dimension. Where the AmeriVent Direct™ vent installation changes from a vertical direction, the vent system must be re-supported within 8 feet of the elbow. Wall Strap bands are available for this purpose. All offset or horizontal runs must be supported at least every 8 feet.

When penetrating the wall, insure that all manufacturer's recommended clearances are maintained and that all local and national building codes specifications are followed.

Wall Thimble

The Wall Thimble (WT) is available to use where AmeriVent Direct™ vent passes through a vertical wall. The Wall Thimble will provide for 1½" clearance to combustible material as the vent passes through the wall. The rough framed-in opening for direct vent is 10" square for 4" x 6½" systems and 11½" square for 5" x 8" systems. The Wall Thimble also acts as a firestop for the vent. Note: Some direct vent appliances require more than 1½" to combustibles on the top of the wall thimble. Some appliances require a shielded thimble supplied by the appliance manufacturer. See manufacturer's installation instructions for exact wall thimble clearance requirements.

Horizontal Termination of AmeriVent Direct™ Systems

AmeriVent Direct™ systems use two types of horizontal termination caps. The standard horizontal cap is a high wind design for terminating horizontal systems through the wall. The horizontal cap includes a vinyl siding stand-off and optional shield. The termination telescopes onto standard AmeriVent Direct™ pipe sections and mounts to the wall. Optional strapping and pilot holes are provided to secure the termination to the wall thimble or adjoining pipe section.

Install the optional vinyl siding shield to protect the wall above the termination. See Fig. 3

AmeriVent Direct™ vent systems may also terminate with a snorkel cap where additional vertical rise is needed on the outside of the building. The snorkel caps are available in 14" and 36" rise above wall penetration. See manufacturer's installation instructions for maximum rise and run information.

FIGURE 3

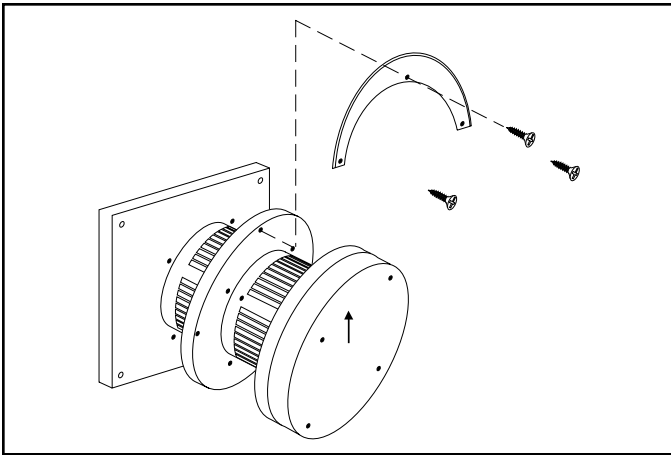
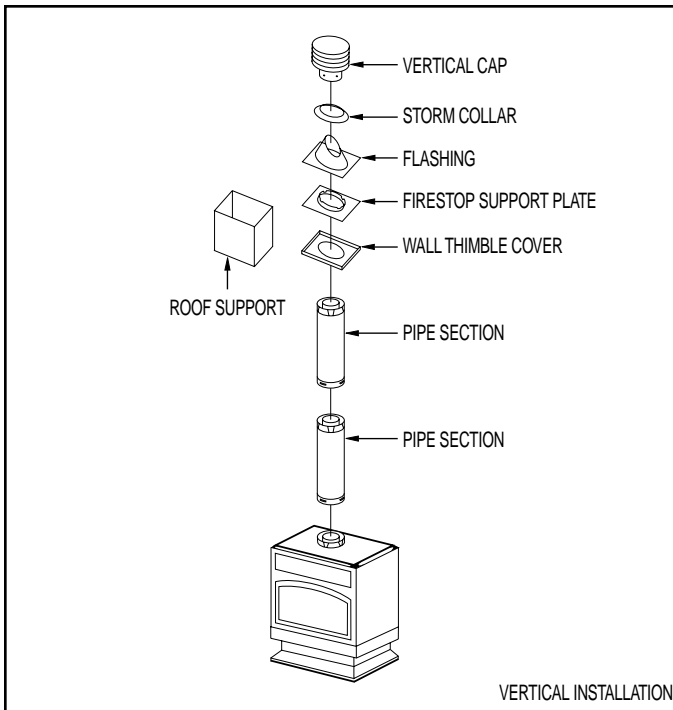


FIGURE 4



Plan the installation. The appliance must be installed in accordance with national and local codes and the manufacturer's installation instructions. Codes and, in some cases, the appliance manufacturer will dictate the location of the termination. Acceptable venting configurations are dictated solely by the individual requirements for that appliance. See manufacturer's installation instructions for restrictions regarding maximum and minimum vent runs, number of elbows, as well as the relationship between lengths of vent run to vent rise.

Choose an appliance and termination location that agrees with both the code and appliance manufacturer's requirements. If you have any doubt about conflicting requirements, choose the more conservative installation.

Attach the first section of AmeriVent Direct™ to the appliance. AmeriVent Direct™ fits most standard appliance start collars used in the market. Check appliance manufacturer's installation instructions to determine if an adaptor is necessary with AmeriVent Direct™. Install the first pipe or elbow section as outlined above.

Elbows and Offsets

AmeriVent Direct™ is available with 45° and 90° elbows. See the manufacturer's installation instructions for maximum rise and run dimensions. Where the AmeriVent Direct™ vent installation changes from a vertical direction, adequate lateral support must be provided by the appliance, a Firestop Support or a Support Band. For sloping or horizontal runs, use horizontal support bands every 8 feet. Refer to the Elbows and Offsets in the Horizontal installations section for details. Offsets should slope upwards away from the appliance a minimum of 1/4 inch rise per foot or run. Resupport from a sloping or horizontal to vertical. Use a Firestop Support or Roof Support for this purpose.

When penetrating the ceiling, insure that all manufacturer's recommended clearances are maintained and that all local and national building code specifications are followed. Note: A firestop is necessary at every point where the AmeriVent Direct™ penetrates the ceiling.

Firestop Supports

The Firestop Support (FSP) and Support Brackets (SB) are designed for use with AmeriVent Direct™ systems.

When used alone, the Firestop Support (FSP) serves as a firestop, while maintaining 1½" clearance to combustibles from the outer wall of the AmeriVent Direct™ system. When the Firestop Support (FSP) is used with the Support Bracket (SB), this combination of parts serves as both a firestop as well as a support. Each support is designed to support up to 20 feet of 4" x 6⅝" pipe and 15 feet of 5" x 8" pipe when installed as follows:

- It is recommended that the vent pipe be supported at least every other floor.
- Frame in an opening providing a 10¼" square for 4" x 6⅝" systems and 11¼" square for 5" x 8" systems.
- Secure Firestop Support (FSP) as shown in Fig. 5, installing strapping (minimum ¼ inch, 28 gauge) through all four slots in collar and nail, as shown in Fig. 6, or nail at all four slots as shown in Fig. 7
- Pass AmeriVent Direct™ vent through opening in Firestop Support (FS).

Note: If used as a support, install Support Bracket (SB), as shown in Fig. 8. Clamp bracket securely to pipe section using a pair of bolts, nuts and washers provided.

FIGURE 5

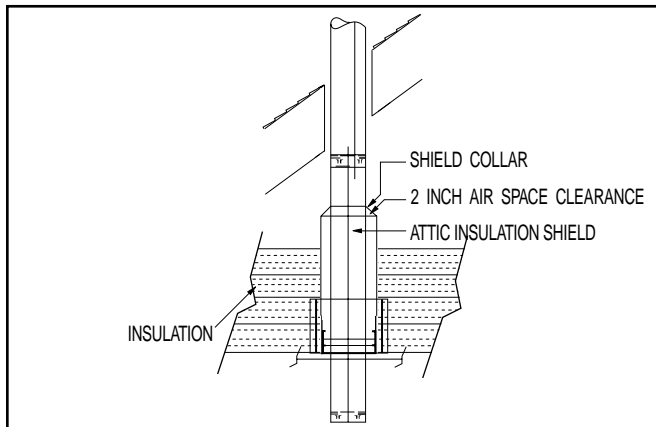


FIGURE 6

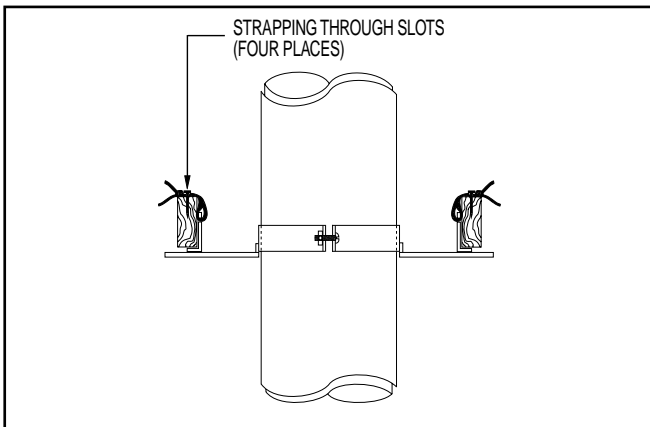


FIGURE 7

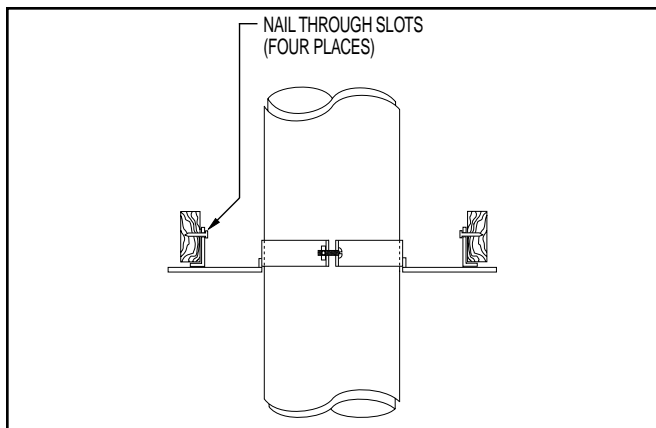
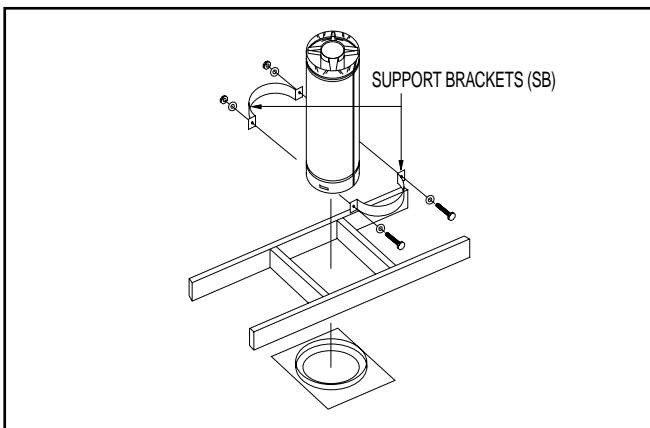


FIGURE 8



Roof Support Assembly

Open Beam or Sloping Ceiling Installation requires the use of a Roof Support Assembly. To install a roof support assembly, read and follow the directions below:

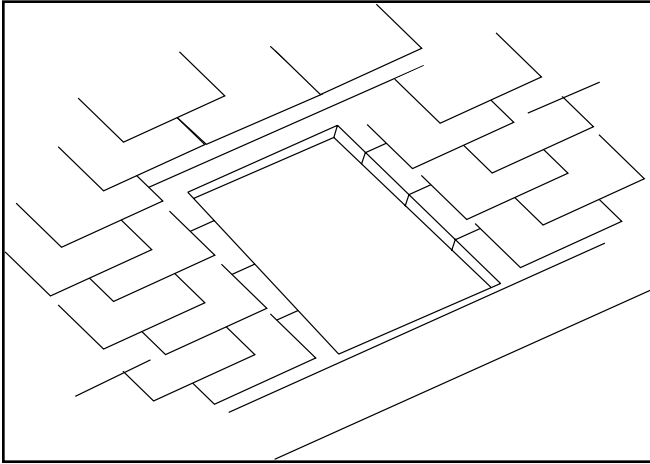
- Cut opening in roof. Cut a rectangular hole in the roof to fit the support snugly. (See Fig. 9). Avoid cutting through a roof rafter. If a rafter must be cut, install a header between the nearest uncut rafters. Frame around the hole. (See Fig. 10).
- Place roof support in hole and lower support (See Fig. 11) until the bottom is below the ceiling. For steep ceilings, frame-in and build a box below the roof to maintain clearances as recommended by the appliance

manufacturer. Tack-nail the support in place. Check to see that support is in a true vertical position by using a level across the bottom face of the support. Adjust tack nails, if required, until bottom of support is level.

- Mark a line on the outside surface of front, back and sides of the roof support where it protrudes above the roofline - matching the pitch of the roof. (See Fig. 12) These lines will indicate where to cut the top of the roof support so it will be flush with the top of the roof. Cut the top of the roof support along the lines by either cutting in place or removing tack nails and withdrawing roof support. If tack nails are removed to facilitate cutting, re-check to see that support is level prior to final nailing.

- d. After cutting is completed, nail through all four sides of roof support into framework installed in step "b". Use a minimum of eight (8) 8d nails.

FIGURE 9



- e. Install Support Bracket (SB) as shown in Fig. 8. Clamp bracket securely to pipe section using the Attic Insulation Shield.

FIGURE 10



FIGURE 11

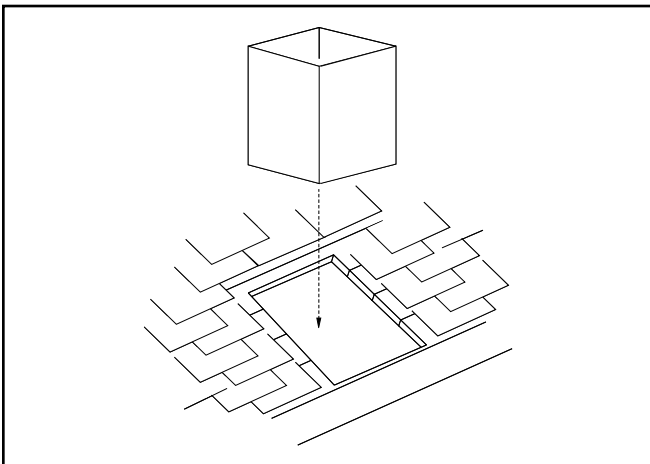
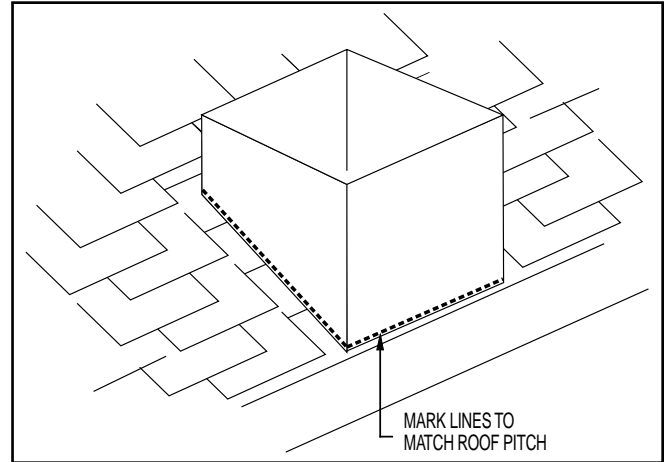


FIGURE 12



Attic Insulation Shield

In order to insure adequate clearance to combustibles, it is necessary to use an attic insulation shield where the AmeriVent Direct™ vent goes through an unoccupied attic space. The AmeriVent Direct™ attic insulation shield is available in two models to fit 12" and 36" insulation thickness. The base of the shield may be mounted between or on top of ceiling joists. If mounted on top of ceiling joists, frame in the opening on all four sides.

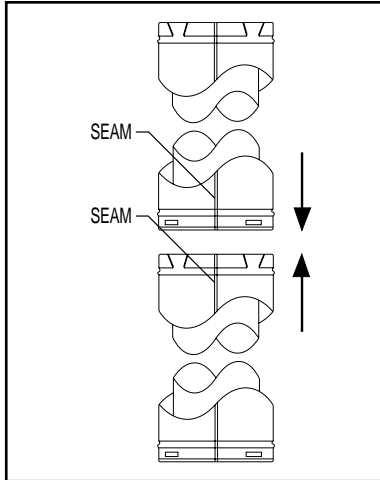
Termination of AmeriVent Direct Systems

AmeriVent Direct systems use two types of termination caps: the vertical termination cap and horizontal termination cap. The vertical cap is a high wind design for terminating vertical systems above the roofline.

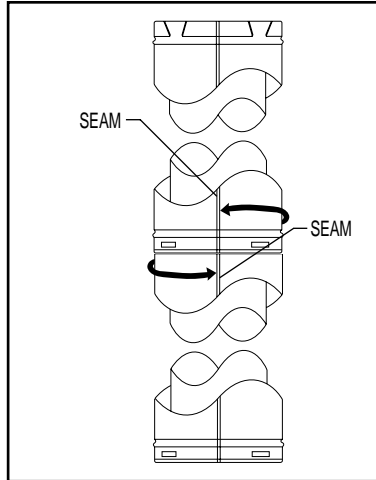
- To ensure a waterproof roof structure, use the appropriately sized flashing and storm collar where the vent penetrates the roof. Place the Storm Collar over the vent until it is level. Apply a thick horizontal ring of non-hardening, high temperature mastic around the vent at the top of the storm collar.
- Vents in excess of 5 feet above the roof should be securely guyed to prevent unnecessary movement. Attach guying to the vent. Never attach guying to the cap.
- To prolong life and appearance of galvanized steel parts located outside, use proper painting procedures:
 1. Remove oil and dirt with a solvent.
 2. Paint with a primer specifically recommended for adhesion to galvanized steel.
 3. Apply finished coat.

LOCKING AND UNLOCKING INSTRUCTIONS

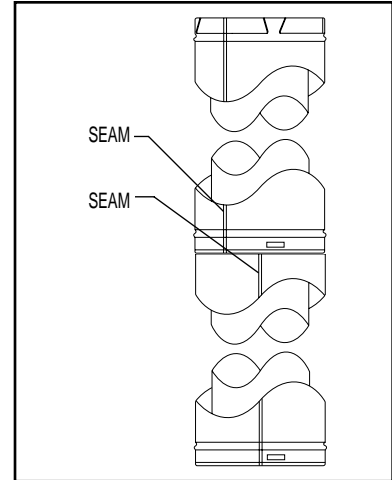
LOCKING



1. Align pipe ends, make sure the pipe seams are in line.



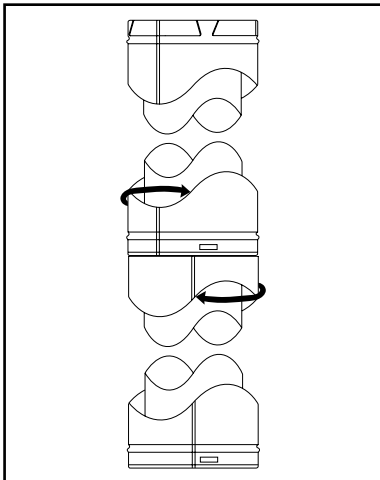
2. Press together until pipes rotate.



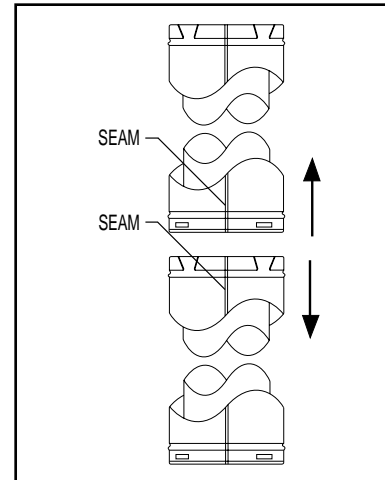
3. Make sure the pipe seam is NOT permanently left aligned with the adjoining pipe seam.

4. Pipes are now firmly connected.

UNLOCKING



1. Rotate pipes until the pipe seam is aligned with adjoining pipe seam.



2. Pull straight apart to disconnect.

AMERICAN METAL PRODUCTS

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