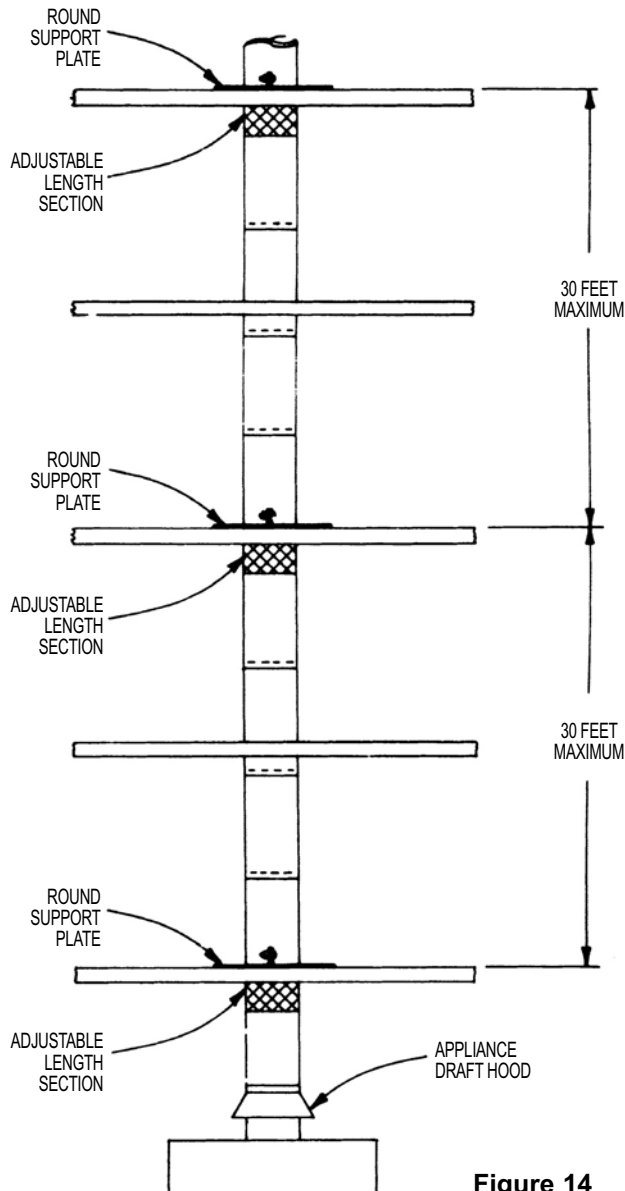


AmeriVent Round and Oval Gas Vent Installation Instructions

location of the pipe recess to be in the proper position at each opening where a support is to be used. The Adjustable Length Section also provides relief for linear thermal expansion. The Adjustable Length Section should be positioned directly under the Vent Pipe Section that is being supported.



E. Vent Pipe Hanger and Support Bracket Assembly

The Vent Pipe Hanger (VPH) (sizes 3-inch through 7-inch) and the Support Bracket Assembly (SBA) for 8-inch through 12-inch Type B Gas Vent are used to provide lateral and some vertical support for sections of Vent, as well as the correct clearance to combustible materials. They also provide support and resupport for offsets and horizontal runs.

Adjustable Length Sections

Adjustable Length Sections (12A and 18A) of Type B Gas Vent are available to allow for installation where fixed-length sections do not produce the desired dimensions. Sizes 3-inch through 8-inch use a single sheet metal screw, which should be screwed into the mating section of Type B Gas Vent. Sizes 9-inch and above use two sheet metal screws equally spaced around the mating section. Oval lengths use a clamping method consisting of a screw and tabs to draw the outer wall tightly around the mating section of Type B Gas Vent.

Adjustable Length Sections may also be used to compensate for linear thermal expansion between two fixed points in the vent system. Examples of this are shown in **Figures 9 and 14**. In these examples the fastening devices are not used. This allows for expansion between two fixed supports or between a fixed support and the appliance. Note that the fastening means should be left loose only if the Vent and the Adjustable Length Sections are installed vertically. If the Adjustable Length Sections are used in a position other than vertical, such as between offsets, the fastening means should be used.

Finally, when joining an Adjustable Length Section to another section of Type B Gas Vent, make sure that there is a minimum overlap of two inches.

Firestopping

All Type B Gas Vent passing through floors, ceilings or within vertical stud walls must be firestopped at floors or ceilings. The Firestop must effectively close the opening between the outer wall of the Vent Pipe and the hole cut in the structure. In attics, the Firestop should be placed on top of the framed ceiling opening to prevent insulation and debris from coming into contact with the Vent Pipe.

NOTE: The Firestop Support Plate Assembly (FS, FSP and EGS), the Support Plate, or Vent Collar functions as a Firestop at the location where it is installed.

Wall Thimble

The Wall Thimble (WT) is available to use where a Type B Gas Vent passes through a vertical wall. The Wall Thimble will provide for the proper clearance to combustible material as the vent passes through the wall, and will also act as a firestop for the vent.

AmeriVent Round and Oval Gas Vent Installation Instructions



Universal Adapters

The Universal Adapter (EUA-M and EUA-F) is available in sizes 3-inch through 6-inch in both male and female versions. The Universal Adapter may be used to connect AmeriVent round Type B Gas Vent to other manufacturers listed Type B Gas Vent as shown in **Table 3**.

<ol style="list-style-type: none"> 1. General Products - Air Jet 2. Hart & Cooley Vent 3. Selkirk Metalbestos - Household Mfg., Eljer 4. Metal Fab 5. Mitchell Metal Products - Mitch Vent 6. Simpson Dura-Vent 7. White Metal Products - Twin Stacks 8. GSW - Jakes - Evans 	Table 3
--	----------------

1. The Universal Adapter is installed, as shown in **Figure 15**, by sliding the Adapter over the outside wall of the other listed Type B Gas Vent. For the Male Adapter, the inner wall goes inside the other Gas Vent, while the inner wall for the Female Adapter goes around the outside of the bottom end of the inner wall of the other Gas Vent.
2. When the Universal Adapter is in place, tighten the fastener securely.
3. The Universal Adapter is not intended to act as a structural member, and the Vent installation should be resupported.

Increasesers

An Increaser (IX) is used to make a transition from a smaller vent diameter to a larger vent diameter. The Increaser is available in steps up to a maximum of four (4) sizes larger. For example, a 4-inch diameter vent can be increased with a single Increaser from 4-inch to 8-inch or 5-inch to 9-inch.

Tees and Wyes

Model E and R Tees (T) and Wyes (Y) are designed for breaching or as connectors for vertical, sloped, or horizontal systems. They can also be used to provide access for inspection or drain fittings. Tees and Wyes must be isolated from expansion forces by supporting as needed and with Adjustable Length Sections. Any unused open end of the Tee or Wye should be closed off with a Tee Cap (TC). Reducing Tees (T) and Wyes (Y) are also available.

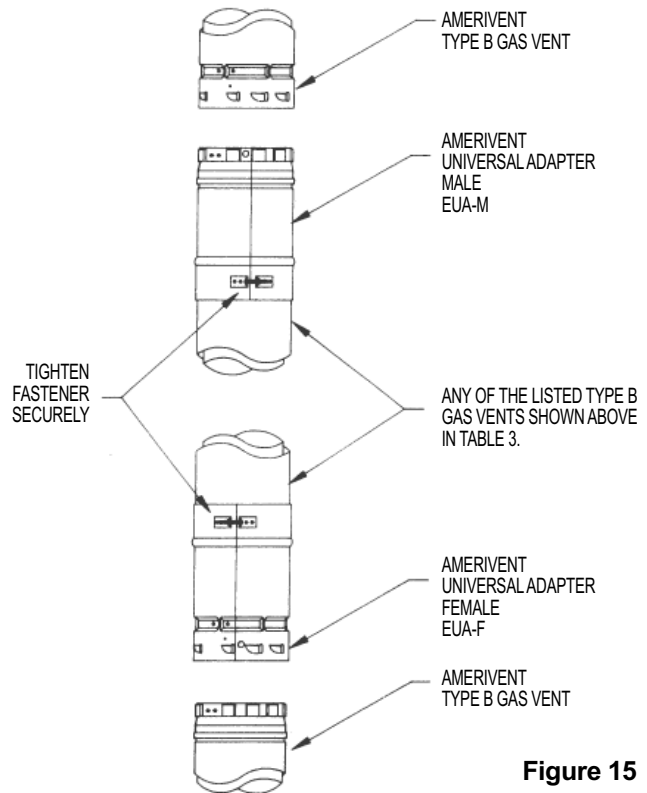


Figure 15

Elbows and Offsets

AmeriVent Type B Gas Vent Model E, sizes 3-inch through 6-inch, and Model R in sizes 7 and 8-inch, are available in both a 45° and 90° fully adjustable offset. The 9-inch through 14-inch Model R is only available in a 45° adjustable elbow. The 16-inch and larger is available in 45° nonadjustable elbow. See **Tables 4 and 5** for relative dimensions of offsets and combinations of offsets. Whenever Model E or R Gas Vent Pipe is changed from a vertical direction, the Vent system must be resupported before and after the change in direction. The support should provide rigid stability, both vertical and horizontally. See **Figure 16**. Check with your local Building Officials to make sure any alternative support method is acceptable.

Code No.	Size	A	B	C	D
3EAL	3"	5"	5¼"	1½"	8"
4EAL	4"	5"	5½"	1¾"	8¾"
5EAL	5"	5½"	6"	2¼"	9¼"
6EAL	6"	6½"	7"	2½"	10¼"
7RAL	7"	7¾"	8"	3"	12¼"
8RAL	8"	8¾"	9"	3¼"	13"

Table 4

TERMINATION OF VENT MUST BE SECURELY GUYED OR BRACED IF IT EXTENDS MORE THAN 5 FEET ABOVE ROOF.

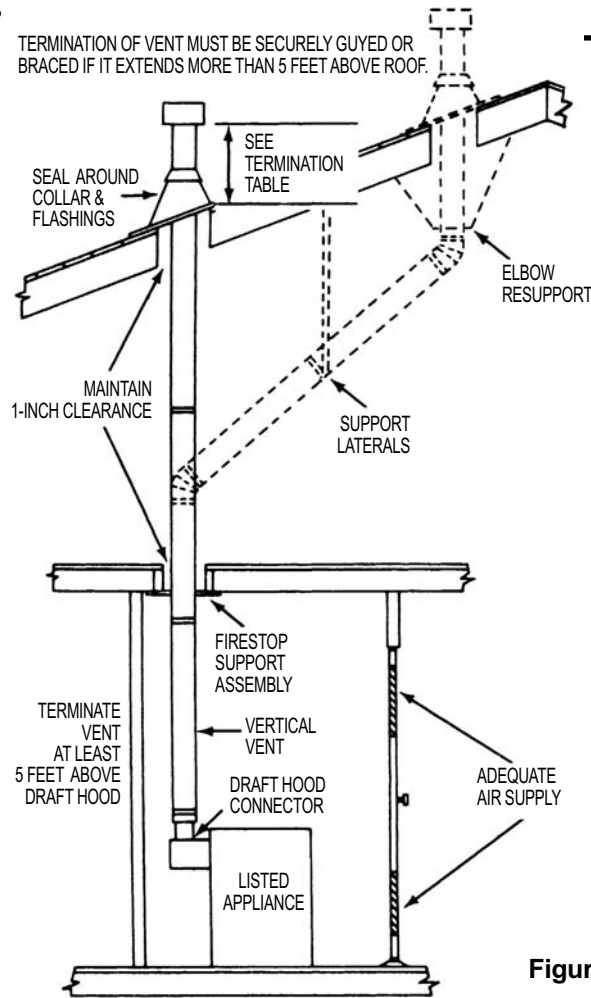


Figure 16

MAXIMUM OFFSET IN INCHES										
Vent Size	With Two 45° Elbows ONLY			With Two 45° Elbows and:						
	A	B		One 6" Length	One 12" Length	One 18" Length	One 24" Length	One 3' Length	One 4' Length	One 5' Length
3	3	2 3/4	3 1/4	6 3/4	11	15 1/4	19 1/2	28	36 1/2	45
4	3 7/8	3 1/16	3 1/4	7	11 1/4	15 1/2	19 3/4	28 1/4	36 3/4	45 1/4
5	3 1/4	3 1/4	4 1/4	7 3/4	12	16 1/4	20 1/2	29	37 1/2	46
6	4	3 13/16	4 1/2	8	12 1/4	16 1/2	20 3/4	29 1/4	37 3/4	46 1/4
7	4 5/16	4 1/4	5	8 1/2	12 3/4	17	21 1/4	29 3/4	38 1/4	46 3/4
8	4 3/4	4 9/16	5 1/2	9	13 1/4	17 1/2	21 3/4	30 1/4	—	47 1/2
9	5	5	6	—	13 3/4	18	22 1/4	30 3/4	—	—
10	5 7/8	5 3/8	7 1/4	—	15	19 1/4	23 1/2	32	—	—
12	6	5 3/8	7 1/4	—	15	19 1/4	23 1/2	32	—	—
14	6 5/8	6 1/2	8 1/2	—	16 1/4	20 1/2	24 3/4	33 1/4	—	—
16	7	7	9 1/4	—	17	21 1/4	25 1/2	34	—	—
18	7 9/16	7 1/2	10	—	17 3/4	22	26 1/4	34 3/4	—	—
20	8 1/2	8 5/8	10 1/4	—	18	22 1/4	26 1/2	35	—	—
22	8	7 5/8	10 1/4	—	18	22 1/4	26 1/2	35	—	—
24	8 5/8	8 5/16	11 1/4	—	19	23 1/4	27 1/2	36	—	—
26	9	9	12	—	19 3/4	24	28 1/4	36 3/4	—	—
28	9 1/2	9 1/2	12 3/4	—	20 1/2	24 3/4	29	37 1/2	—	—
30	10	10	13 1/2	—	21 1/4	25 1/2	29 3/4	38 1/4	—	—

Note: The vertical rise can be closely estimated by adding one "A" and one "B" dimension to Maximum Offset.

Table 5

Section 2 Model O Oval

Basic Vent Structure

AmeriVent (Model O) Oval Gas Vent is available in sizes 4, 5, and 6-inch. The individual sizes reflect the flow rate capacities equivalent to 4-inch, 5-inch, and 6-inch Round Type B Gas Vent. The joint of the Model O Type B Oval Gas Vent takes up one inch when assembled. The Model O Gas Vent is UL-listed for the following applications and clearances to combustibles as shown in **Table 6**.

Underwriters Laboratories-listed Minimum Clearances to Combustibles		
Oval AmeriVent Description	Type	Minimum Clearance
4", 5" and 6"	B	1"
4" and 5" (when installed in 2x4 stud wall with other-than-recessed heater)	B2x4	Clearances as determined by use of 4OFS or 5OFS firestop spacers at each ceiling level
4" (when installed in 2x4 stud wall with recessed heater)	B-W	Clearances as determined by use of 4OHD hold-down plate, 4OPS ceiling plate spacers, and 4OFS firestop spacers

Table 6

Type B Oval Gas Vent

Type B Oval Gas Vent is available in sizes 4, 5, and 6-inch, and requires a 1-inch clearance to combustibles. This includes all Vent Sections, Elbows, Tees, and Adapters. When used as Type B Gas Vent, Model O must follow all of the same requirements as round Type B Gas Vent, such as the necessity of using firestops at each floor level. See **Section 1**.

Type B 2 x 4 Gas Vent - 4" or 5" Oval

Four- and five-inch AmeriVent (Model O) Gas Vent may be installed within a standard 2x4 stud wall if **all** the following conditions are met.

1. Arrows on AmeriVent parts should always point up.
2. Stud bay must be a 16-inch, on-center stud bay.
3. 2x4 studs must be a minimum of 3.5 inches deep.
4. There must be nothing else in the stud bay other than the Vent Section. **This includes any type of insulation.**
5. The Firestop Spacer (FS) must be installed at each floor level. See **Figure 17**.

NOTE: Only the straight Vent Pipe Sections, with or without the Oval Tee, may be used inside the stud bay with reduced clearances to combustibles. See **Figure 17**.

Installation of Type B 2 x 4 Gas Vent

1. Cut out the ceiling plate in the space where the Vent is to be installed.
2. Nail a 2x4 support (A) at the desired height between the studs. See **Figure 17**.
3. Attach the Tee Support (B), the Tee (C) with the Oval Tee Cap, and the Vent Pipe (D) as shown on **Figure 17**.
4. At each floor level above the Tee, install the Firestop Spacer (E) as shown in **Figure 17**.

NOTE: Provide at least a 1-inch clearance around the Tee branch where it passes through combustible wall construction.

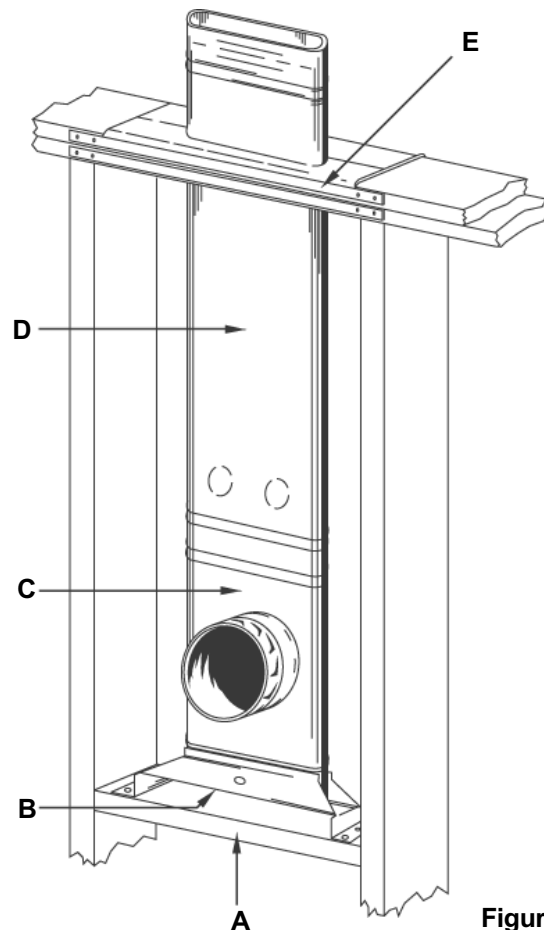


Figure 17

Type B-W Gas Vent - 4" Oval

AmeriVent (Model O) Gas Vent may be installed within a standard 2x4 stud wall if **all** the following conditions are met.

1. Arrows on AmeriVent parts should always point up.
2. Stud bay must be a 16-inch, on-center stud bay.
3. 2x4 studs must be a minimum of 3.5 inches deep.

4. There must be nothing else in the stud bay other than the Vent and furnace. **This includes any type of insulation.**
5. The installation must contain an Oval Hold-Down Plate (4OHD) at the base, Oval Plate Spacers (4OPS) at the first ceiling level, and Firestop Spacers (4OPS) at any additional floor levels. See **Figures 18** and **19**.

Installation of Type B-W Gas Vent

1. Cut out the ceiling plate at the floor level above the heater flush with studs in space where Vent is to be installed.
2. Nail one AmeriVent Plate Spacer (40PS), (A), across cut-out area in ceiling plate. See **Figure 18**. Plate Spacer (4OPS) is required at the first ceiling level above a wall furnace to center and space vent properly and to provide the required opening between floors.
3. Snap Hold-Down Plate (4OHD), (B), onto bottom end of AmeriVent pipe as shown in **Figure 18**. Install Vent Section in position. Use two No. 8 binder head sheet metal screws to attach Hold-Down Plate firmly to Furnace header plate through pre-punched holes.
4. Nail second AmeriVent Plate Spacer across cutout ceiling plate as shown in **Figure 18**. Firestop Spacers (OFS) must be used at subsequent levels.
5. If the Vent is to continue additional stories within a 2x4 stud space, install Firestop Spacers at the second and subsequent ceiling levels as shown in **Figure 19**.

Type B-W Installation

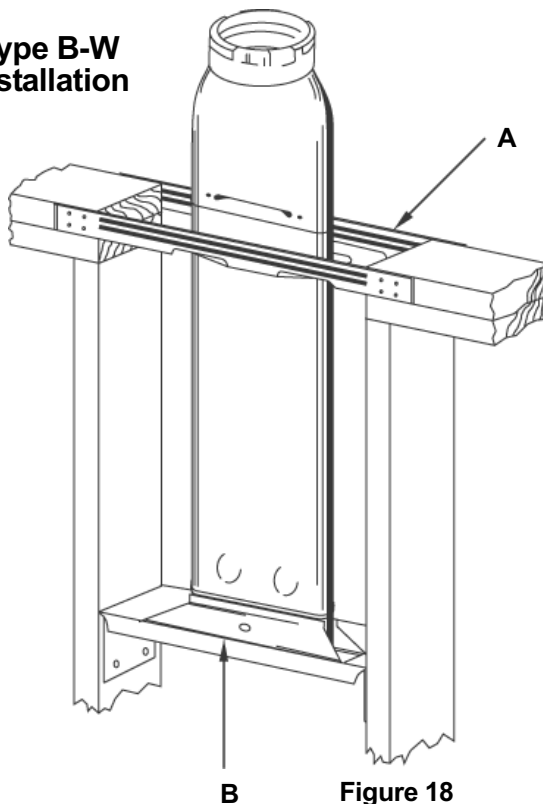


Figure 18

6. After passing through the last Firestop Spacer, the Vent may be finished with either round or oval AmeriVent fittings, flashings and AmeriVent Cap. (Round pipe, fittings, flashings, and vent caps cost less than corresponding oval parts.)

Attic Insulation Shield

In some areas, the building code requires the use of an attic insulation shield (AVS) on single-story Type B-W installations.

Multi-Story Type B-W Installations

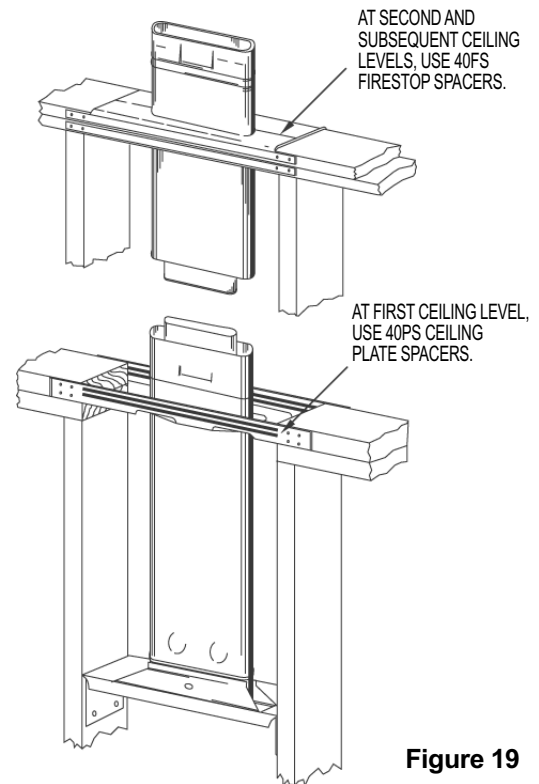


Figure 19

Termination of Vent Structure

The AmeriVent Gas Vent is available for most models and sizes in two styles of Termination Tops--AmeriVent Cap and Universal Cap. The AmeriVent Cap is a lock-neck design with the same lock as the female end of the Vent sections. The Universal Cap is designed to fit inside the inner wall of the vent sections.

American Metal Products 12" and smaller Gas Venting Systems, using either the AmeriVent Cap or the Universal Cap, may terminate in accordance with **Table 7** and **Figures 20** and **21**.

AmeriVent Cap 12" and Smaller Gas Vent Termination Table	
Roof Pitch	Minimum Height
Flat to 7/12	1.00 feet
over 7/12 to 8/12	1.50 feet
over 8/12 to 9/12	2.00 feet
over 9/12 to 10/12	2.50 feet
over 10/12 to 11/12	3.25 feet
over 11/12 to 12/12	4.00 feet
over 12/12 to 14/12	5.00 feet
over 16/12 to 18/12	6.00 feet
over 18/12 to 20/12	7.00 feet
over 20/12 to 21/12	8.00 feet

Table 7

CAUTION

WHERE HEAVY SNOWFALL OCCURS, THE CAP SHOULD BE INSTALLED TO MEET THE ABOVE MINIMUM HEIGHT REQUIREMENTS ABOVE THE AVERAGE SNOW DEPTH.

AmeriVent Caps 12" and Smaller

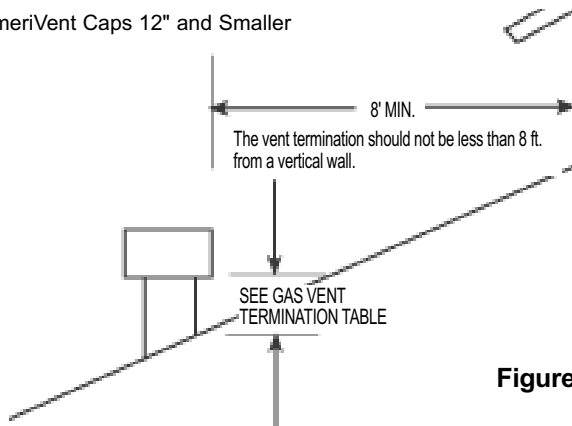


Figure 20

AmeriVent Caps larger than 12" must be located at least 2 feet above the highest point where they pass through a roof and at least 2 feet higher than any portion of a building within a horizontal distance of 10 feet.

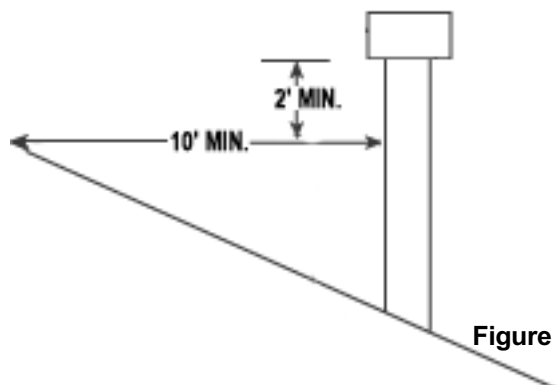


Figure 21

AmeriVent Caps 3" thru 30"

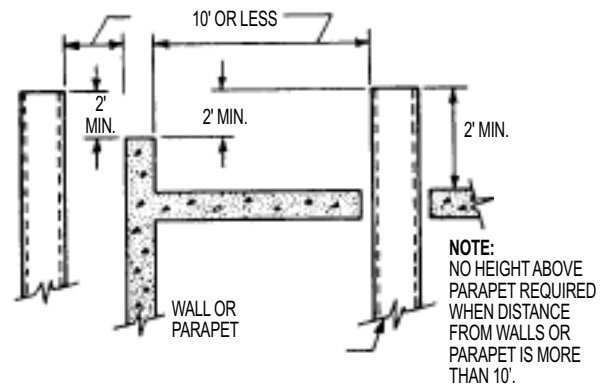


Figure 22

A cap or chimney housing offers resistance to the entrance of rain, snow and debris, as well as birds, and will minimize the effect of wind on the vent. It will protect the vent from down drafts due to a wind that impinges directly upon the vent.

However, no vent cap, cowl, or top can overcome the adverse effect of a region of high static pressure around the vent terminal or the effect of an interior region of low pressure. Regions of high static pressure around the vent terminal can be avoided by following the general rule for the vent termination given previously. Low or negative interior pressures in the building may be caused by (1) failure to provide for combustion air, (2) excessive use of exhaust fans, and (3) tight construction resulting in the lack of infiltration air.

1. 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 nonhardening, high-temperature mastic, such as silicone, around the vent at the top of the Storm Collar.
2. 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.
3. To prolong life and appearance of galvanized steel parts located outside, use proper painting procedure.
 - a. Remove oil and dirt with a solvent.
 - b. Paint with primer specifically recommended for adhesion to galvanized steel.
 - c. Apply finish coat.

Checking Vent Operation

After adjusting appliance and lighting main burner, allow several minutes for warm-up to begin venting action. For water heaters and equipment with draft hoods, hold a lighted match along the rim of the draft hood relief opening of the appliance. Proper venting will draw the flame up or into the draft hood. Improper venting, indicated by escaping or spilling of burned gas, will cause the match to flicker or go out. When consulting Standard NFPA 54, follow procedures for conducting safety inspections of existing appliances and placing equipment in operation, paying particular attention to the section titled ***Checking the Draft***.

IMPORTANT!

1. Connect this GAS VENT only to gas-burning appliances, as indicated in the Installation Instructions. ***Do not*** connect to incinerators, or to liquid or solid fuel-burning appliances.
2. This VENT SYSTEM must be inspected by a qualified professional prior to each heating season. This inspection should include the removal of the Vent Termination Cap to confirm that there are no obstructions in the vent.

IMPORTANT NOTICE TO INSTALLER !!

**POST THIS NOTICE NEAR THE POINT
WHERE THE CONNECTION IS MADE TO THE
GAS VENT !**

IMPORTANT!

1. Connect this GAS VENT only to gas burning appliances, as indicated in the Installation Instructions. Do not connect to incinerators, or to liquid or solid fuel-burning appliances.
2. This VENT SYSTEM must be inspected by a qualified professional prior to each heating season. This inspection should include the removal of the Vent Termination Cap to confirm that there are no obstructions in the vent.

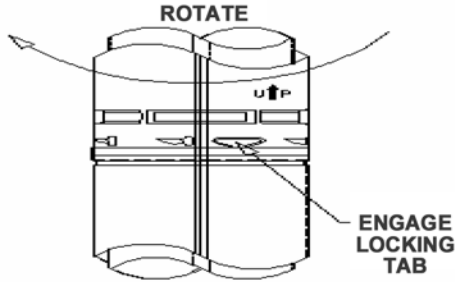
IMPORTANT!

1. Connect this GAS VENT only to gas burning appliances, as indicated in the Installation Instructions. Do not connect to incinerators, or to liquid or solid fuel-burning appliances.
2. This VENT SYSTEM must be inspected by a qualified professional prior to each heating season. This inspection should include the removal of the Vent Termination Cap to confirm that there are no obstructions in the vent.

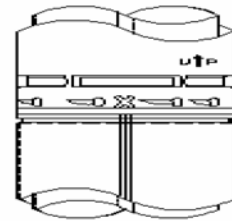
Locking and Unlocking Instructions

Model E - sizes 3" to 6"

TO LOCK NEW CONNECTION STYLE

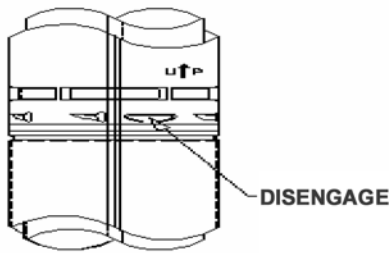


1. Press together and engage the locking tab. Once locking tab is engaged rotate pipe until the "X" on female end of pipe is aligned with the seam of the connecting pipe.

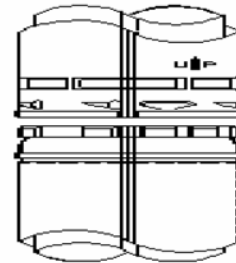


2. Pipes are now firmly connected.

TO UNLOCK NEW CONNECTION STYLE

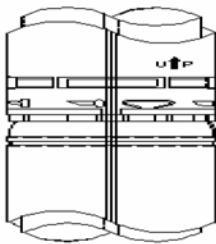


1. Rotate pipe until seams are aligned. Disengage locking tab.

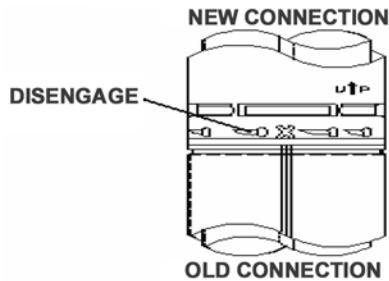


2. Pull pipe sections apart.

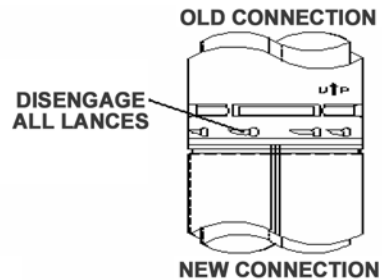
NEW/OLD CONNECTION COMPATIBILITY



Line up pipe ends and snap together. Push tab must be engaged for secure connection.



To disconnect new female end from old male end, disengage lance to left of embossed "X" and the push tab.

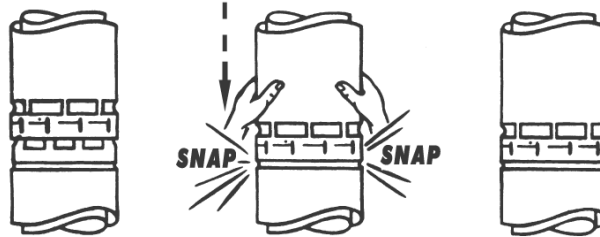


To disconnect new male end from old female end, disengage all lances and the push tab. Line up seams and pull apart.

Locking and Unlocking Instructions

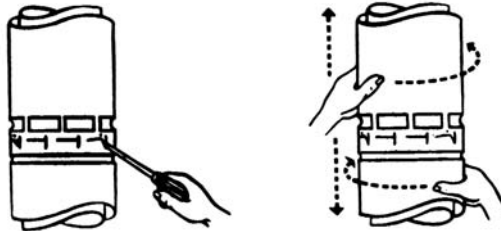
Model R - sizes 7" to 30"

TO LOCK JOINT



1. Line up pipe ends.
(Embossed arrows must point up or away from the appliance.)
2. Press together until couplers Snap-Lock.
3. Pipes are now firmly connected.

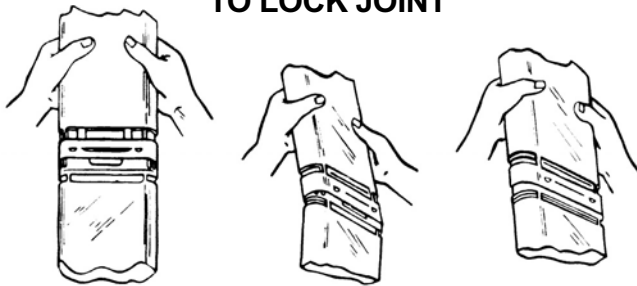
TO UNLOCK JOINT



1. On size 7", pry out the 3 teeth marked with dots. For larger sizes, pry out all teeth.
2. Rotate joint slightly while pulling gently apart.

Model O - Oval Vent

TO LOCK JOINT



1. Place female coupler over preceding male coupler.
2. Press other side of pipe down until joint seats.
3. Press other side of pipe down until joint SNAP-LOCKS.

TO UNLOCK JOINT



1. Insert screwdriver one inch into joint as shown.
2. Press firmly inward with blade of screwdriver and pry upwards **VERY SLOWLY AND GENTLY**. Joint will slowly separate without damage.



Amerivent
5030 Corporate Exchange Blvd SE
Grand Rapids, MI 49512
www.ameri-vent.com

800-423-4270 toll-free
616-656-8400 phone
800-626-3825 toll-free fax
616-656-6388 fax
800-669-3190 technical services