

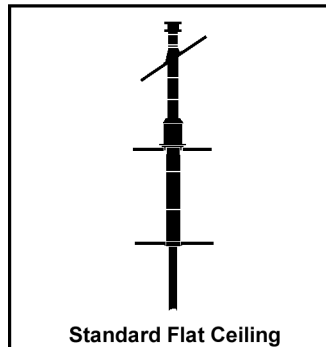
# Installation & Assembly Instructions



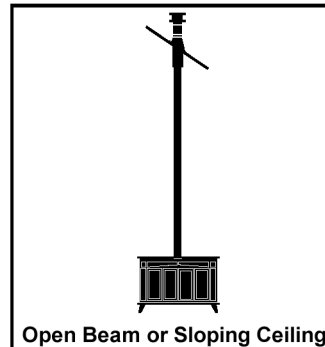
This symbol on the product means the product is listed by Underwriters Laboratories, Inc.

## AMERIVENT® Model HS/HSS Factory-Built Chimney

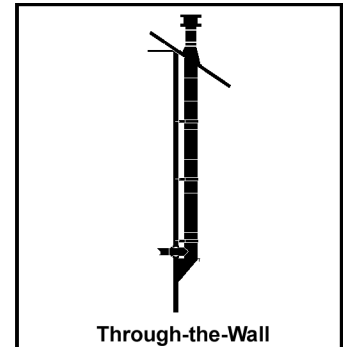
*These are the three ways to install AmeriVent Model HS/HSS all-fuel chimney.*



Standard Flat Ceiling



Open Beam or Sloping Ceiling



Through-the-Wall

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

**Do not install chimney without first reading these instructions very carefully.**

- AmeriVent Model HS/HSS all-fuel chimney systems meet the requirements of UL Standard #103 HT when installed in accordance with our installation instructions. AmeriVent Model HS/HSS all-fuel chimneys are designed to be installed as complete systems, including supports, pipe sections, caps, firestops, attic insulation shields, etc.
- The AmeriVent Model HS/HSS all-fuel chimney construction consists of three walls of metal, using air and woven ceramic fiber blanket insulation. The inner and intermediate walls are stainless steel, and the outer wall is galvanized steel. This chimney is listed (UL 103 TYPE HT) for venting flue gases not exceeding 1000°F under continuous operating conditions. In addition, UL has conducted additional tests at 1400°F for one hour and 2100°F for 10 minutes to verify compliance with UL test standards. The Model HS/HSS all-fuel chimney is approved, accepted, or listed by UL, NFPA, IMC and UMC.

- The AmeriVent Model HS/HSS all-fuel chimney is suitable for use on the following types of wood, coal and oil appliances.

### **Residential Appliances**

Ranges, warm-air furnaces, water heaters, hot-water heating boilers, 15 psi or less steam boilers, floor furnaces, wall furnaces, room heaters, and fireplace stoves.

### **Building Heating Appliances**

Nonresidential building heating appliances, steam boilers operating at not over 1000°F flue gas temperature.

- The Model HS/HSS Chimney may also be used where type B gas vents are permitted, but should not be used for forced-draft or induced-draft appliances that have a positive pressure in the vent.
- Installing or using our chimney or parts of our chimney in ways other than those specified in our instructions might be hazardous; therefore, the chimney must be installed exactly as shown in these instructions.

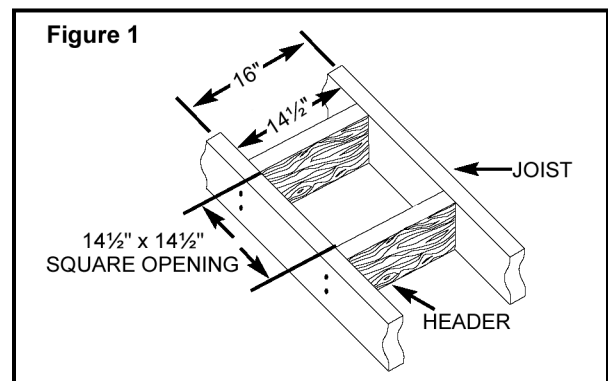
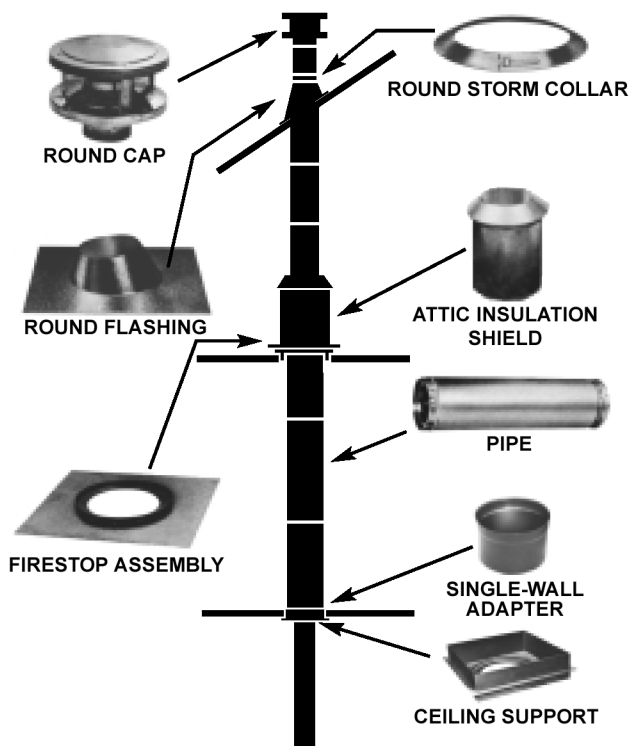
# AmeriVent Model HS/HSS All-Fuel Chimney Installation Instructions



- Use single-wall or other approved connecting pipe between the appliance and the chimney as recommended by appliance installation instructions. **Do not connect chimney pipe sections directly to appliances, unless the appliance is specifically listed for direct connection to AmeriVent Model HS all-fuel chimney.** Consult the appliance manufacturer's installation instructions for their specific chimney installation requirements. AmeriVent Model HS all-fuel chimneys may be connected directly to a masonry fireplace by using an AmeriVent anchor plate instead of a standard support.
- **IMPROPER INSTALLATION OR FAILURE TO INSTALL AS A COMPLETE SYSTEM VIOLATIVE OF OUR INSTALLATION INSTRUCTIONS WILL VOID THE WARRANTY.**
- Consult the appliance manufacturer's installation instructions for their specific chimney installation requirements. Chimney size should be at least as large as the flue outlet of the appliance, or that recommended by the manufacturer.
- **IMPORTANT! DO NOT** put any type of insulation in the required 2-inch minimum airspace clearance to combustibles surrounding the chimney. This requirement **especially applies to cellulose insulation**, which, in many cases, is merely treated shredded newspaper.
- A chimney enclosure must provide a minimum of 2 inches of airspace clearance from combustibles, including building

- insulation, roofing material and electrical wiring. This enclosure also protects the chimney from being damaged.
- Except for installation in one- and two-family dwellings, factory-built chimney that extends through any zone above that on which the connected appliance is located is to be provided with an enclosure having a fire-resistance rating equal to or greater than that of the floor or roof assemblies through which it passes.
- When handling chimney sections and parts, we recommend the use of gloves.
- Each wood-burning appliance requires its own separate chimney system.
- With the exception of the tee branch made up of one 12-inch or one 24-inch section of pipe, or the use of 30° offsets, the chimney must be installed vertically. **NOTE:** Two sets of offsets maximum.
- Inspect chimney components before installation, and do not attempt to install any part that appears to be damaged.
- Contact local building or fire officials about restrictions and installation inspection in your area, and obtain required building permits.
- After reading the instructions, if you still have any doubt about your ability to complete the installation in a workman-like manner, you should arrange for a professional installation.

## STANDARD FLAT CEILING



until trim flange is flush and level with ceiling. Drive 8d nails into joists through all sixteen (16) prepunched holes. Install the black single-wall adapter, furnished with the ceiling support, by pushing the end without the flange down through the opening in the bottom of the support until the flange rests snugly in the support (see Figure 2). **NOTE:** To conceal larger rough-cut openings, the optional Ceiling Support Face Plate may be installed (see Figure 2).

### A. STANDARD FLAT CEILING INSTALLATION

#### 1. Ceiling Support Assembly Cat. No. 6, 8 HS-CSA

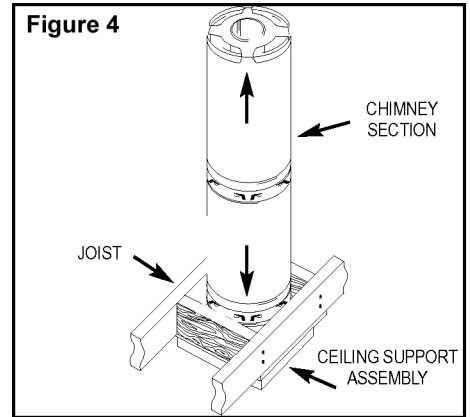
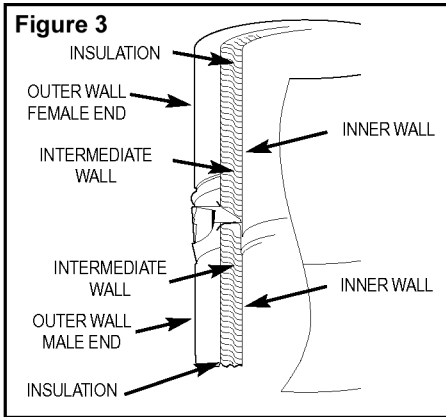
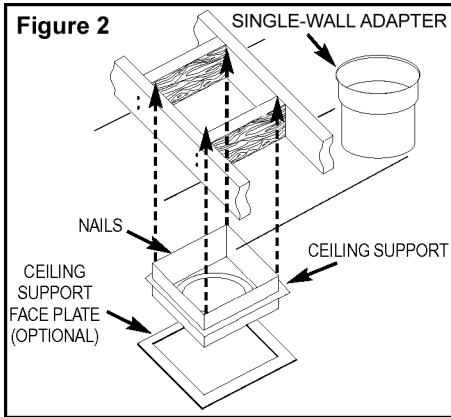
The ceiling support is designed to be installed in a square boxed-in area between standard (16 in. on centers) joists. See Figure 1 for boxed-in dimensions. From above, lower the support (see Figure 2) through boxed opening. Turn support and pull it up into position

#### 2. Chimney Pipe Section

**Cat. No. 6, 8 HS/HSS-6, 12, 18, 24, 36, 48**

Place the first chimney section in the support with the embossed arrow on the chimney pointing up (see Figure 4). Make sure that the pipe section is seated securely with the inner liner down into the single-wall adapter shown in Figure 2. Assemble second section with arrow pointing up. Apply pressure downward until the locking teeth snap-lock into place on the section below. As each section is connected, make sure the inner wall is mated together properly with the section below (see Figure 3) and that all snap-lock teeth are securely locked together.

**NOTE:** Chimney height not to exceed 90 feet.



**3. Firestop Assembly Cat. No. 6, 8 HS-FSA**

**NOTE:** Firestop assemblies are required in dwellings wherever the chimney passes through floors above the ceiling support. A ceiling support is used only in the ceiling directly above the appliance, and firestop assemblies must be used at all other floor levels. Firestop assemblies maintain proper clearances between chimney and combustible material. Prepare an opening in the ceiling according to the chart in Table 1. This opening must be framed on all four sides. Assemble chimney sections up to firestop opening.

- a. For all floor levels above ceiling support, with the exception of attic, guide firestop assembly over chimney section below with spacer flange toward joist (see Figure 5). Complete assembly of pipe through joist. Push firestop up against bottom of ceiling with spacer into joist opening. Nail firestop in place with three (3) nails on each side.
- b. On attics where chimneys are enclosed or where the attic insulation shield is used (see Section 4), the firestop must be installed on the top of joist in the same manner described in Section a.

**4. Attic Insulation Shield Cat. No. 6, 8 HS-AIS**

If the chimney passes through an attic space, one of the following methods must be used to prevent building insulation from infringing on the required 2-inch airspace to combustibles.

**NOTE:** On new construction, the chimney should be enclosed (or insulation shield installed) before installing insulation.

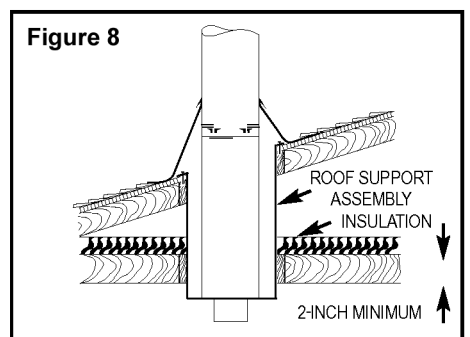
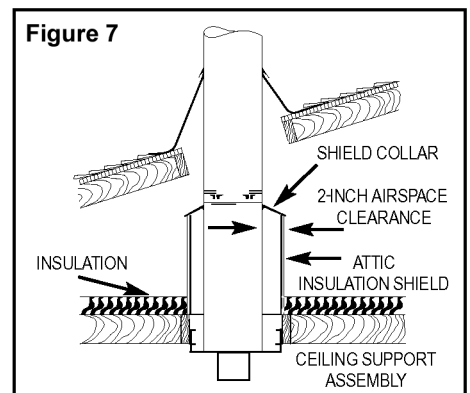
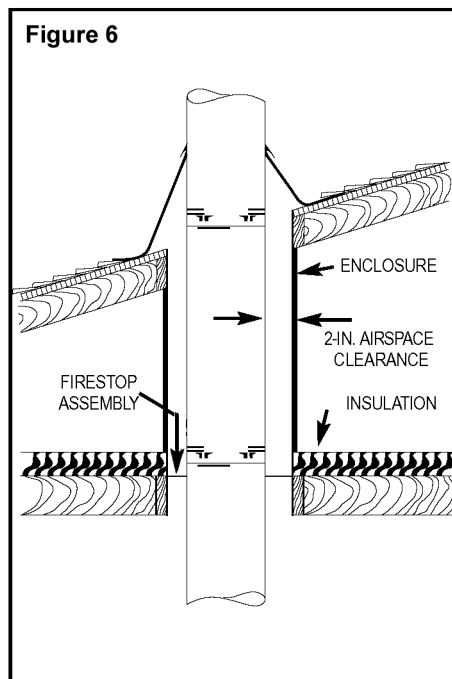
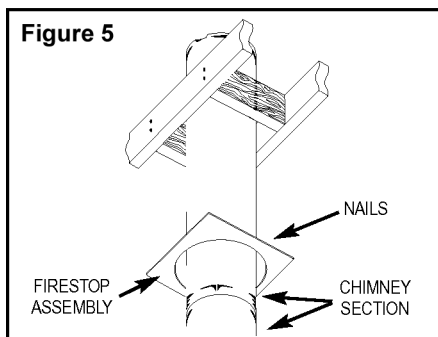
- a. Completely enclose the chimney where it passes through the attic space, maintaining at least 2 inches of airspace clearance (see Figure 6) after installing firestop assembly as in Section 3.b.
- b. Install an attic insulation shield on the top of the joist (see Figure 7).

**NOTE:** Attic shield is 18 inches high; therefore, if there is 18 inches or less clearance from roof in the area where chimney is located, the chimney must be totally enclosed instead of using attic insulation shield.

- 1) Slide the double-wall attic insulation shield down around the chimney, with the flat plate sitting either directly on the joist above the ceiling support or on firestop assembly.
- 2) Position attic shield collar around pipe tightly, and push down onto double-wall attic insulation shield to prevent loose insulation from entering the 2-inch airspace.

FIRESTOP ASSEMBLY	OPENING REQUIRED
Chimney Size	Inside Dimensions
6 in. ID	13 in. x 13 in.
8 in. ID	15 in. x 15 in.

**Table 1**

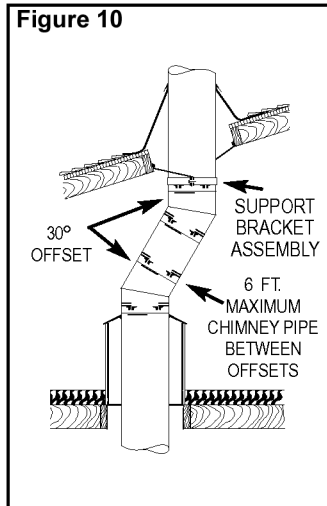
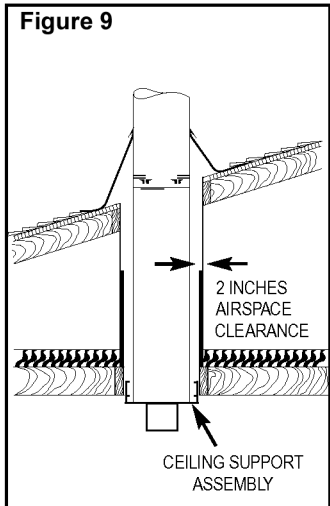


# AmeriVent Model HS/HSS All-Fuel Chimney Installation Instructions



**NOTE:** If after installation of attic insulation shield the chimney must, at some later time, be totally enclosed, remove the attic shield collar as shown in Figure 9.

**IMPORTANT OPTION:** In the cases where the location of the chimney for a low pitch roof situation makes installation of the attic shield impossible and enclosure of the chimney difficult, a third method of protection is shown in Figure 8. It is possible to install the roof support as shown in Figure 8, described in Section b. The steep pitch roof support, RSA24, can be used as long as the 2-inch minimum dimension shown in Figure 8 is maintained.



## 4.1 Joist Shield Cat No. 8HS-JS

A joist shield for 8" chimney may be installed to reduce clearances to combustibles and/or a firestop for passing through floors, ceilings and roofs with 16" o.c. construction. See Joist Shield instructions.

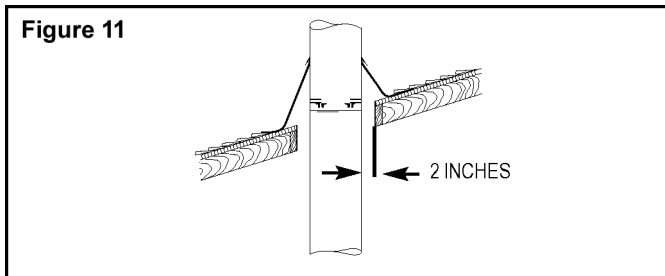
## 5. 30° Cat. No. 6, 8 HS/HSS-030

The 30° offset fittings let the chimney "go around" joists, rafters, or other projections as shown in Figure 10. A pair of 30° offset fittings will permit the following horizontal offsets to be obtained.

Size 6 in. =  $4\frac{3}{8}$  in.

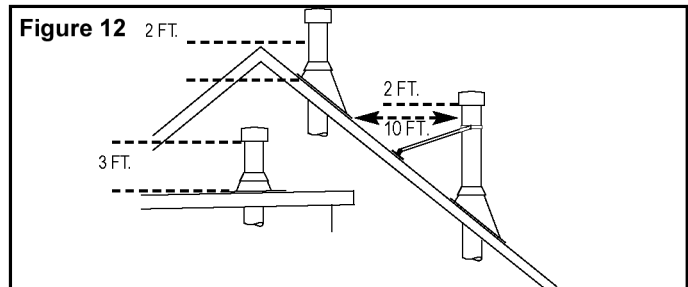
Size 8 in. =  $4\frac{3}{8}$  in.

Maximum of two (2) sets of offsets allowed. If an additional horizontal offset is required, up to 6 feet of chimney sections may be installed between the offsets as shown in Figure 10. For each foot of added chimney section, the horizontal offset increases by approximately 6 inches. At any time, the maximum permitted offset from the vertical is 30°. When offsets are used, the chimney should be supported using Support Bracket Assembly (see Figure 10). You may need to temporarily support the offset during assembly. The offsets use the same locking system as the pipe sections described in Section A.2. Page 2.



## 6. Chimney Cap Cat. No. 6, 8HS-RCS, Storm Collar Cat. No. 6, 8SC Roof Flashing Cat. No. 6, 8F

- Using a plumb line when necessary to locate a perfectly straight chimney stack, locate and cut an opening in the roof large enough to provide at least a 2-inch airspace clearance to chimney. **DO NOT CUT RIDGE BOARD.** Avoid cutting rafters, if possible, by use of offsets described in Section A.5, Page 4. If rafter must be cut, install headers between the nearest uncut rafters. Frame opening, allowing at least a 2-inch airspace clearance between chimney and combustibles (see Figure 11).
- Finish the chimney to a height at least 3 feet above the roof and at least 2 feet higher than any portion of the building within 10 feet (see Figure 12).
- Place the roof flashing suitable for the roof pitch (see Figure 13) over the chimney pipe, and, using care to maintain a 2-inch minimum clearance, nail securely with minimum of three (3) roofing nails to the roof through the side and top of plate. (DO NOT nail through the bottom of plate.) All parts exposed to weather should be painted. A light color paint must be used on the outside chimney walls and be capable of withstanding at least 400°F temperatures. Cover nail heads with waterproof bead of high-temperature silicon sealant.
- Finish roofing around chimney, covering the side and upper edges of flashing plate with roofing material (see Figure 14). Be sure the lower unnailed portion of the plate covers the roofing material.

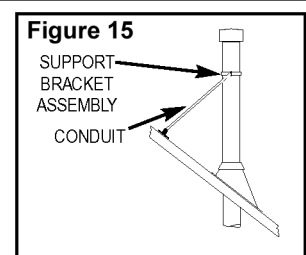
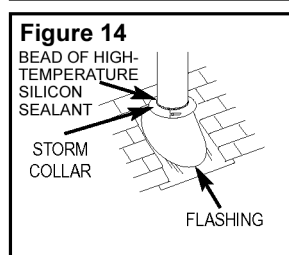


**Figure 13 Chimney Termination**

**FLASHING GUIDE**  
Note: To double check the flashing you need for your roof pitch, see the flashing guide and instructions below.

Determine roof pitch.  
Pitch is expressed in  $\frac{1}{2}$  units. If "A" is 4 and "B" equals 12, the pitch of the roof is  $\frac{1}{2}$ .

Roof Pitch	Part No.
Flat to $\frac{1}{2}$	RF
$\frac{1}{2}$ to $\frac{3}{4}$	HS-RFFU12
$\frac{3}{4}$ to $1\frac{1}{2}$	HS-RFFU18
$1\frac{1}{2}$ to $2\frac{1}{2}$	HS-RFFU24



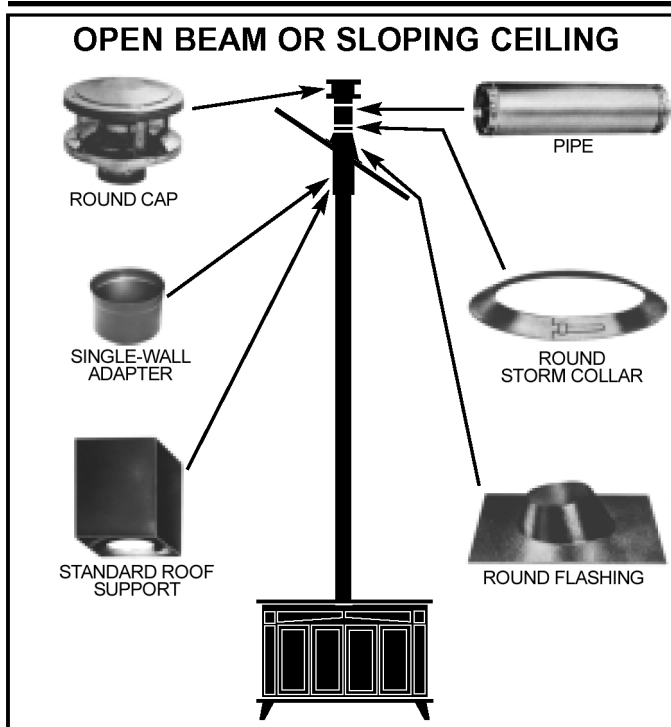
- e. Place the storm collar down over the chimney until it is level. Tighten storm collar for a snug fit. Apply a bead of high-temperature silicon sealant around chimney at top of storm collar (see Figure 14).
- f. Install chimney cap by pushing cap downward until the bead on cap's inner liner rests on the top of upper pipe section.
- g. If the chimney extends more than 5 feet above the roof, it will require additional bracing. We suggest using a Roof Brace Kit or a field-fabricated assembly, using a Support Bracket Assembly as shown in Figure 15. To determine the length of brace, measure from Support Bracket Assembly to point on roof where brace will be anchored. Flatten the ends of 3/4-inch conduit for approximately 1 inch length at 90° to each other. Drill a

1/4-inch hole in each end of conduit, and bolt it to the support bracket with the bolt head inside the support bracket. Install support bracket, draw bolt tight, and attach other end of conduit to roof.

### 7. Chimney Connector Hook-up

Connect the appliance to the chimney's single-wall adapter (see Figure 2) by using a minimum 24-gauge, single-wall connector pipe. Clearances from connector pipe to combustible material shall be as specified in Chapter 5 of the National Fire Protection Association (NFPA) Standard 211.

**NOTE:** For reduced clearance applications or mobile home installations, AmeriVent Model DCC Double-Wall Chimney Connector is also available.



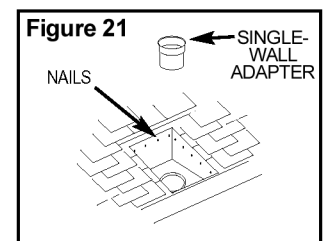
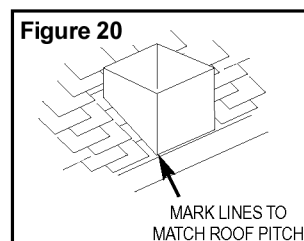
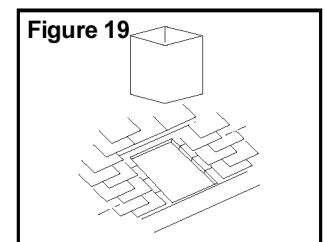
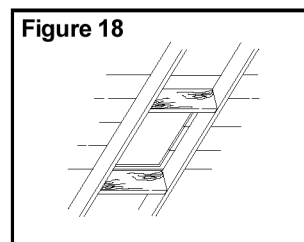
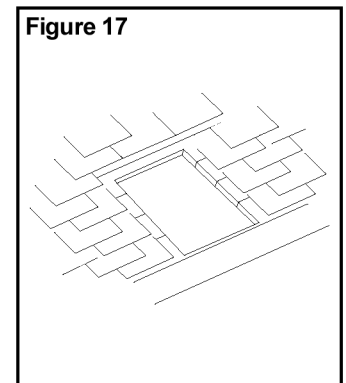
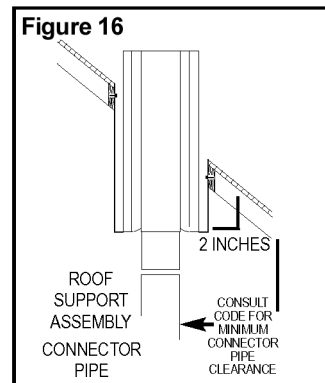
- d. Mark a line on the outside surface of front, back and sides of the roof support where it protrudes above the roofline, matching the pitch of the roof (see Figure 20). These lines indicate where to cut the top of the roof support so it will be flush with the top of the roof. Cut the top of the roof 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, be sure to recheck to see that support is level prior to final nailing.
- e. After cutting is completed, nail through all four sides of roof support into framework installed in Step b. Use a minimum of sixteen (16) 8d nails.
- f. Install the single-wall adapter furnished with the support by pushing the end without the flange down through the opening in the bottom of the support until the flange rests snugly in the support (see Figure 21).

## B. OPEN BEAM OR SLOPING CEILING INSTALLATION

### 1. Roof Support Assembly

#### Cat. No. 6, 8 HS-RSA

- a. Check height of roof support assembly. The standard roof support is used for most open beam or sloping ceiling installations. For steeper pitched roofs, extra-long roof supports are available. See Figure 16 for minimum airspace clearances from support and connector pipe to roof structure.
- b. Cut opening in roof. Cut a rectangular hole in the roof to fit the support snugly (see Figure 17). 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 Figure 18).
- c. Place roof support in hole and lower support (see Figure 19) until the bottom is at least 2 inches below the ceiling or adjacent beam (whichever is lower). For extra-thick beams, use longer roof support to maintain clearances as shown in Figure 16. 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.



# AmeriVent Model HS/HSS All-Fuel Chimney Installation Instructions



## 2. Chimney Pipe Sections

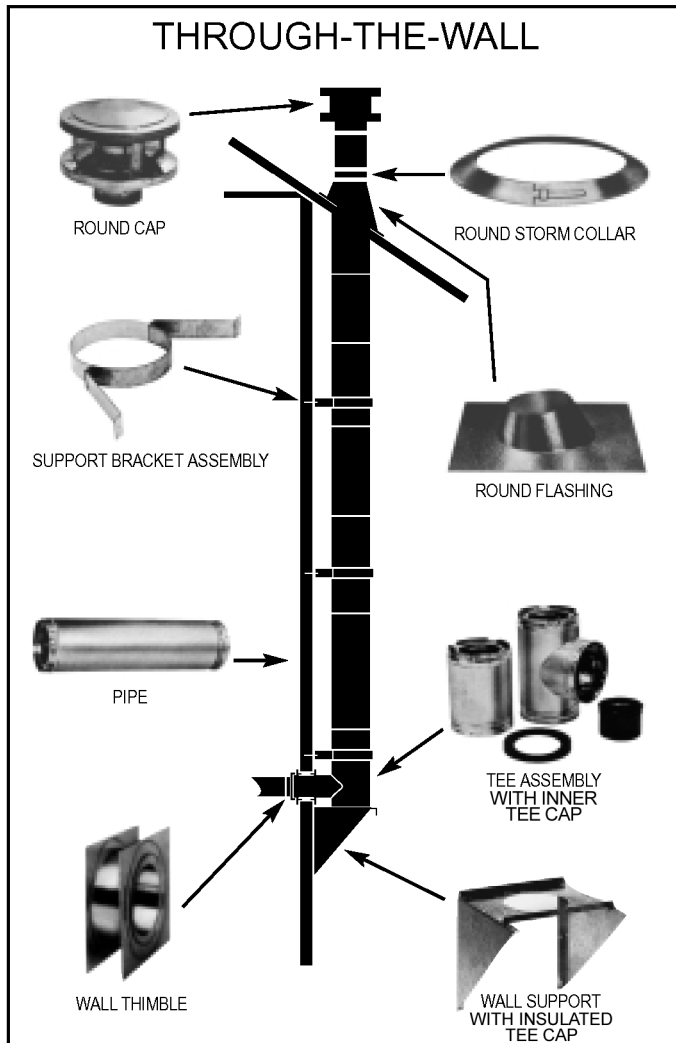
Cat. No. 6, 8 HS/HSS-6, 12 18, 24 36, 48  
See Section A.2., Page 2.

## 3. Chimney Cap, Storm Collar and Roof Flashing

See Section A.6., Page 4.

## 4. Chimney Connector Hook-Up

Connect the appliance to the chimney's single-wall adapter (see Figure 21) by using a minimum 24-gauge single-wall connector pipe. Clearances from connector pipe to combustible material shall be as specified in Chapter 5 of the National Fire Protection Association (NFPA) Standard 211.



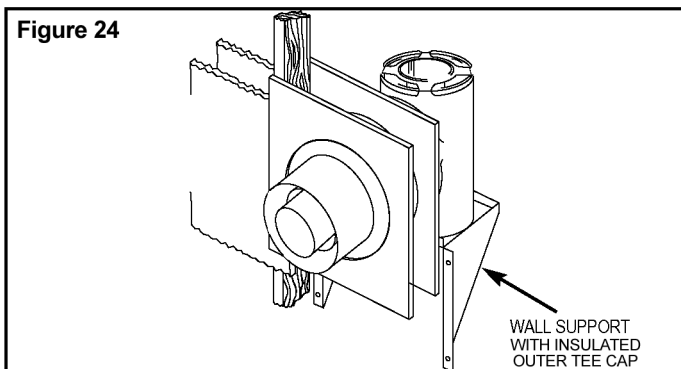
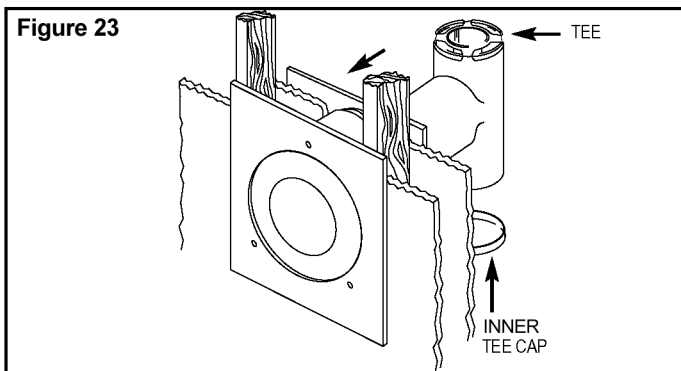
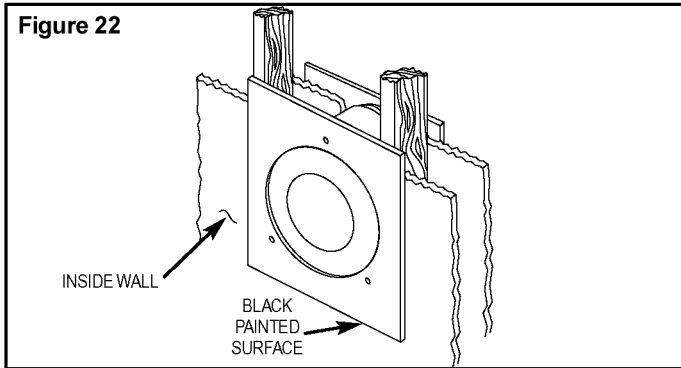
CHIMNEY SIZE	SQUARE OPENING SIZE
6 in. ID	13 1/8 in.
8 in. ID	15 1/8 in.

**Table 2**

## 2. Install Wall Thimble

### Cat. No. 6, 8 HS-WTP

- a. Install the wall thimble through opening in wall with the black painted surface on the inside wall (see Figure 22). Screw each trim plate in place through the four (4) prepunched holes on each trim plate (see Figure 23). Use bead of high-temperature silicone sealant between outer plate of thimble and exterior wall.



## B. THROUGH-THE-WALL INSTALLATION

**NOTES:** Chimney height should not exceed 30 feet for through-the-wall installations (see Figure 26). We recommend enclosure of exterior-mounted chimneys below the roofline in geographical areas experiencing sustained low-ambient temperature to help reduce or limit condensation, creosote build-up and poor draft. Also install an access door into the enclosure for cleaning and maintenance.

### 1. Make Opening In Wall

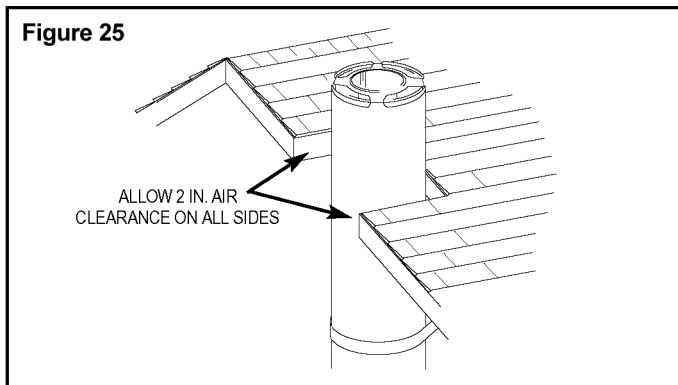
Be sure to maintain minimum of 2-inch airspace clearance to combustibles.

- a. Locate position on wall where chimney tee is to be installed.
- b. Cut a square opening through wall per Table 2.

- b. For wall thickness less than 8 inches, use a 12-inch long piece of chimney. For walls 8 inches or thicker, you must use an 18-inch or 24-inch long piece of chimney. Make sure that the 4½-inch minimum dimension shown in Figure 26 is maintained. Attach the chimney section to the chimney tee branch in the same manner described in A.2., Page 2. Slide this assembly of chimney and tee through the thimble as shown in Figure 24. The tee cap fits on the inner wall at the bottom end of the tee trunk (see Figure 23). When the chimney tee is fixed securely in place, add a bead of high-temperature silicone sealant at the interface where the tee branch passes through the wall thimble on the exterior surface to prevent air infiltration.
- c. Install wall support per separate wall support instructions, and secure support to wall with lag screws or toggle bolts (see Figure 26).

**3. Assemble Chimney Sections**

- a. Assemble per Section A.2., Page 2.
- b. Support Bracket Assembly must be used every other section or every 6 feet, and must be secured to wall by lag screws or toggle bolts to provide lateral support of the chimney and to ensure correct spacing to wall.



**4. For Overhanging Roofs**

- a. If roof overhangs the wall of the structure so that passage of the chimney is obstructed, it is necessary to cut a hole in the overhang. Leave a minimum of 2-inch clearance and install the flashing and storm collar per Section A.6.a-e., Page 4 (see Figure 14).
- b. Alternate Method: Cut away the portion of overhang as shown in Figure 25, allowing for minimum 2-inch clearance to combustible material. Do not use 30° offsets to overcome overhang.

**5. Chimney Cap**

Install the chimney cap per Section A.6.f., Page 5.

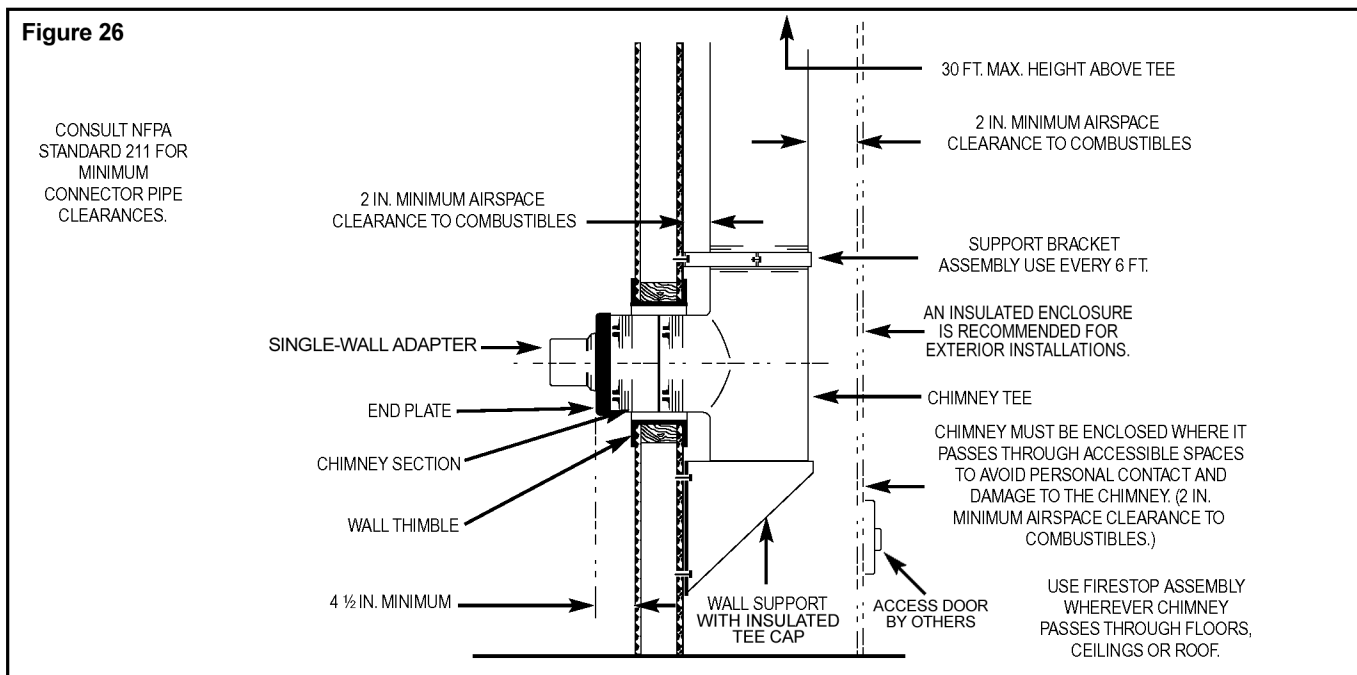
**6. Extended Height**

If the chimney extends more than 5 feet above the roof, it will require additional bracing. We suggest using a Roof Brace Kit or a field-fabricated assembly per section A.6.g.

**7. Connect Appliance to Chimney**

- a. Slip the black single-wall adapter furnished with the tee over the inner liner of the branch of the chimney tee with the adapter's 45° flange toward the tee (see Figure 26). Position the black pipe end plate over the single-wall adapter and over the end of tee branch. Fasten pipe end plate to outer wall of the tee branch, using a minimum of two (2) 3/8-inch sheet metal screws furnished with end plate.
- b. Connect the appliance to the chimney's single-wall adapter (see Figure 26) by using a minimum 24-gauge single-wall connector pipe. Clearances from connector pipe to combustible material shall be as specified in Chapter 5 of the National Fire Protection Association (NFPA) Standard 211.

**NOTE:** For reduced clearance applications or mobile home installations, AmeriVent Model DCC Double-Wall Chimney Connector is also available.



## Instructions for burning wood

# Operation and Maintenance

### Creosote and soot formation and need for removal:

When wood is burning slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire.

The chimney should be inspected at least every two months during the heating season to determine if a creosote or soot build-up has occurred. If creosote or soot has accumulated, it must be removed to reduce the risk of chimney fire.

The chimney can be inspected for cleaning in three ways.

1. *From the top:* Remove the chimney cap by lifting the lower edge of cap and pulling upwards away from the chimney.

**NOTE:** Cap fits snugly. Use care to avoid losing balance when removing and installing cap.

2. *From the bottom:* Remove the chimney connector.

3. *From the chimney tee:* Remove insulated outer tee cap and screws to remove the inner tee cap from bottom of tee.

Chimneys should be cleaned only with brushes designed for this purpose.

Do not use chemical cleaners or burn driftwood. The salts contained in both can shorten life of product.

Contacting a professional chimney sweep is suggested.

Overloading your stove with fuel may result in overheating the chimney and connecting parts, thereby creating a fire hazard. If any part of the stove or connecting pipe **GLOWS RED**, it is overfired. If this happens, close stove doors, draft wheels or other combustion air controls (if applicable); set the thermostat (if any) to minimum temperature.

Never use flammable liquids to start a fire.

If you have a chimney fire or notice discoloration of the outside wall of your chimney, it must be inspected before further use.

Never leave a fire in a wood-burning stove unattended.

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## Lifetime Warranty

Seller warrants to the original purchaser for resale that the products sold hereunder shall be free from defects in material or workmanship appearing during the lifetime of original owner, so long as s/he lives in the house where the chimney was installed, for AmeriVent ProLine, HS, and DCC products.

This warranty is contingent on Buyer giving Seller prompt notice of any defect. Seller's obligation under this warranty is limited to the replacement of any of the products that are defective in material or workmanship and that are returned to Seller with transportation charges prepaid, and is conditioned upon the Buyer furnishing satisfactory evidence that the goods alleged to be defective have been professionally installed, maintained, cleaned at least once a year, and operated under normal conditions.

This warranty shall not apply to any labor charges or incidental or consequential damages or to goods that have been subjected to misuse, abuse, neglect or improper storage, handling or maintenance.

**THIS WARRANTY IS THE ONLY WARRANTY, EXPRESSED OR IMPLIED, GIVEN BY THE SELLER, AND THE SELLER HEREBY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**



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