



**PELLET VENT INSTALLATION
INSTRUCTIONS INCLUDING
CATHEDRAL CEILINGS AND
MASONRY RELINES**



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

Read through all of these instructions before beginning your installation. Failure to install as described in this instruction will void the manufacturer's warranty, and may have an effect on your homeowner's insurance and UL listing status. Keep these instructions for future reference. This booklet also contains instructions for installing a venting system within an existing masonry chimney, and for installations passing through a cathedral ceiling.

AN IMPORTANT MESSAGE ABOUT CLEARANCES AND APPLICATIONS

SIMPSON DURA-VENT'S Pellet Vent Pipe is listed by Underwriter's Laboratories as a vent for listed pellet stoves. It is also listed as a masonry reliner, in which case the minimum clearance is as specified on the label which is pasted on to each piece of Pellet Vent Pipe. The minimum clearance from Pellet Vent to combustibles is 3". Never fill any required clearance space with insulation or any other materials. Combustible materials include lumber, plywood, sheetrock, plaster and lath, furniture, curtains, electrical wiring, and building insulation of any kind.

PELLET VENT TESTING

Pellet vent is tested and listed to UL Standard 641 for safe low temperature venting systems, Type L, and produced under the factory inspection and follow-up program of Underwriters Laboratories, Inc.

INSTALLATION NOTES

Proper planning for your pellet vent installation will result in greater safety, efficiency, and convenience, saving both time and money. Use only authorized SIMPSON DURA-VENT PELLETT VENT listed parts. Do not install damaged parts.

- 1. WARNING:** When passing through ceilings and walls, make sure all combustible materials and building insulation products are a minimum of 3" away from the vent pipe.
- 2.** When exiting through walls, make sure NFPA rules are followed for distance from windows and openings. These rules are shown on page 6.
- 3.** Do not mix and match with other products or improvised solutions.
- 4.** Practice good workmanship. Sloppy work could jeopardize your pellet vent installation.
- 5.** Never choose a vent with an inside diameter that is smaller than the appliance flue outlet.
- 6. Multi-story:** Where pellet vent passes through the ceiling, use Simpson Dura-Vent Firestop/Support assembly.
- 7. Pellet vent placement:** When deciding the location of your stove and vent, try to minimize the alteration and reframing of structural components of the building.
- 8.** Sections of pipe are connected to each other by pushing them firmly together and twisting. Screws are not required. If screws are desired, use 1/4"-long sheet metal screws. Under no circumstances, penetrate the inner liner with screws.
- 9.** Never install single-wall pipe to freestanding pellet stoves. Single-wall pipe may be connected to a fireplace insert, provided it is inside the fireplace, and the fireplace has completely sealed surroundings.
- 10.** Do not connect B-Vent pipe with aluminum liners to vent pellet vent appliances.
- 11. Inspections:** The use of pelletized fuel does not eliminate the need for inspection and cleaning. During the heating season, inspect monthly.

TOOLS AND EQUIPMENT YOU MAY NEED

Eye Protection	High-Temperature Waterproof Sealant
Screwdriver	Tape Measure
Gloves	Saber or Keyhole Saw
Hammer	

PERMITS

Contact your local building code or fire officials regarding permits, restrictions, and installation inspection in your area.

GENERAL INSTALLATION INSTRUCTIONS

1. Follow the stove manufacturer's instructions.
 - A. Choose a stove that is listed by a recognized testing laboratory.
 - B. Connect only one flue per appliance.
 - C. Follow the stove manufacturer's instructions and safety manual for maximum efficiency and safety. Overfiring can damage the stove and pellet vent.
2. If the vent exit is on top of the stove: (Figure 1)
 - A. Place the appliance according to the manufacturer's instructions.
 - B. Drop a plumb bob to the center of the appliance flue outlet and mark center point on the ceiling, cut a square hole in the ceiling for the Ceiling Support Firestop Spacer. Refer to Table 1 for the dimensions of the hole.
 - C. Connect pipe adaptor to stove: Attach each section of pipe by pushing male and female ends of pipe together and twisting until pipe is in locked position.
 - D. When the pipe passes through the Firestop/Support at ceiling, tighten bolt

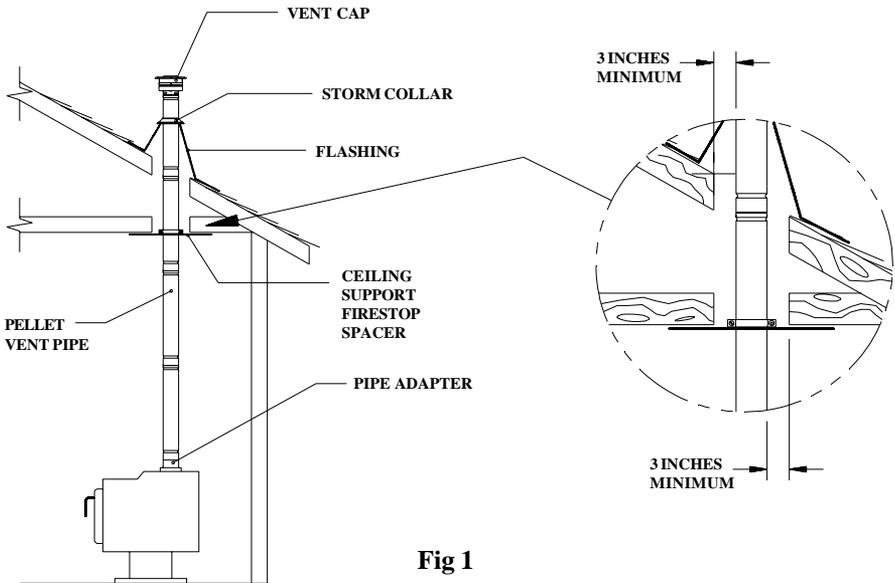


Fig 1

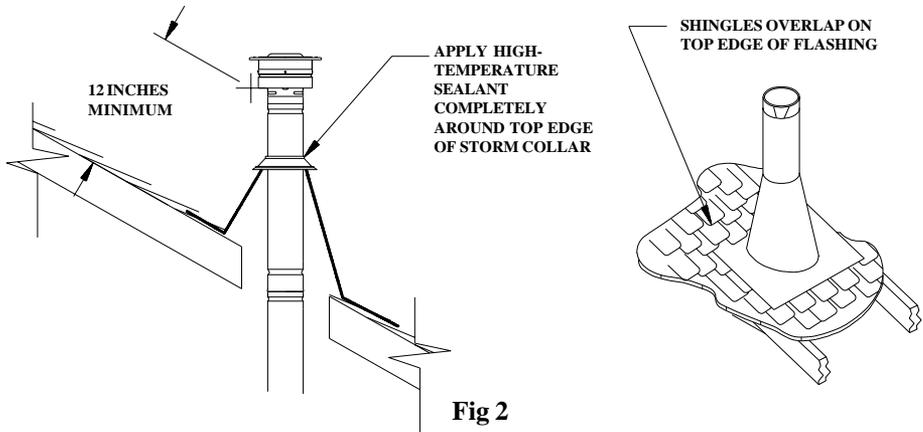
and clamp around pipe.

E. ALWAYS MAINTAIN AT LEAST 3" CLEARANCE FROM COMBUSTIBLE MATERIALS. Where the chimney passes through additional floors and ceilings, always install a Firestop Spacer.

TABLE 1	
PIPE SIZE	OPENING (INSIDE DIM)
3" PIPE	9-5/8" X 9-5/8"
4" PIPE	10-5/8" X 10-5/8"

After lining up for hole in roof, use same method as 2.(B); cut either a round or square hole in the roof. Always cut the hole 6" larger than the diameter of the pipe. Install the upper edge and sides of Flashing under the roofing materials and nail to the roof along the upper edge. Do not nail the lower edge. Seal all nail heads with high-temperature waterproof sealant.

F. After lining up for hole in roof, use same method as 2.(B); cut either a round or square hole in the roof. Always cut the hole 6" larger than the diameter of the pipe. Install the upper edge and sides of Flashing under the roofing materials and nail to the roof along the upper edge. Do not nail the lower edge. Seal all nail heads with high-temperature waterproof sealant.



G. To finish, apply high-temperature waterproof sealant where the Storm Collar will meet the vent and Flashing; slide Storm Collar down until it sets on the Flashing, put the Cap on and twist to lock. (Figure 2)

3. If the flue exit is on back of stove and interior installation is desired: (See the example in Figure 3):

A. Place the appliance according to the manufacturer's instructions.

B. Connect a Pipe Adaptor to the back of the stove and attach a Tee to Pipe Adaptor, align, push together and twist to lock.

C. Continue to assemble pipe in the manner described in paragraph 2.

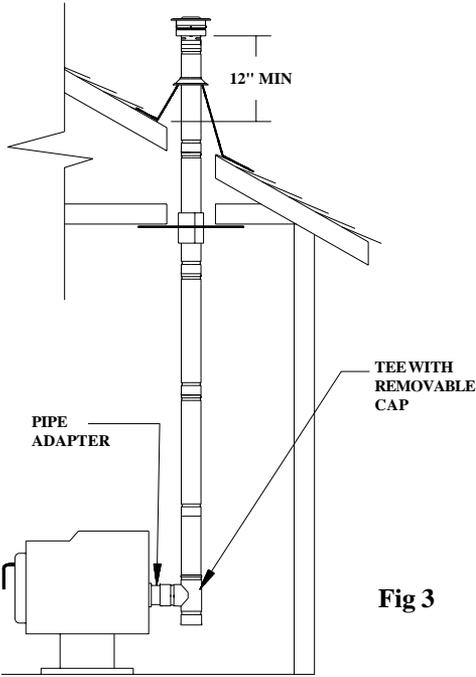


Fig 3

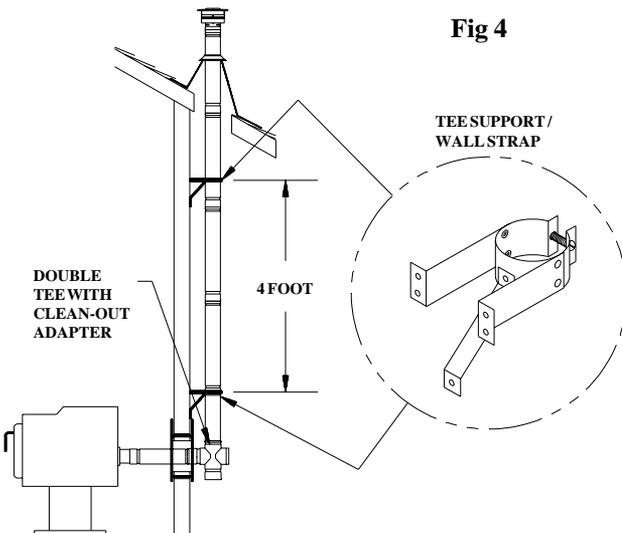
4. If the flue exit is on back of stove, and exterior vertical installation is desired: (Figure 4):

A. Place the appliance according to manufacturer's instructions.

B. Cut a square opening in the wall in accordance with the dimensions in Table 2. The black portion of the Wall Thimble is to be attached to the interior wall, and the galvanized portion is to be attached to the exterior wall. The Wall Thimble is adjustable to fit walls from 3" - 8" thick. (Figure 5.)

C. Connect a Pipe Adaptor to back of stove; attach pipe to penetrate wall so vertical section from Tee will be 3" from the exterior of the wall. Attach a regular Tee or a Double Tee with Clean-Out Adapter, and proceed up the wall. Attach a Tee Support/Wall Strap just above the tee.

Fig 4



A Tee Support/Wall Strap must be placed at 4-foot intervals along the vertical run. Assemble pipe in the same manner described in paragraph 2 of the general instructions. If an Adjustable Length is required in the horizontal run, and the Adjustable Length must enter the Wall Thimble, the diameter of the center hole in the Wall Thimble must be enlarged by 1/8" to

TABLE 2	
PIPE DIAMETER	REQUIRED OPENING
3-INCH & 4-INCH	7-1/2" x 7-1/2"

accommodate the Adjustable Length.

D. Seal the galvanized section of the Wall Thimble to the exterior wall with non-hardening sealant.

5. If the flue exit is on back of the stove, and a horizontal through-the-wall installation is desired: (Figure 6).

A. Place the appliance according to manufacturer's instructions.

B. Connect the Pipe Adaptor to back of stove and attach sufficient pipe to penetrate Wall Thimble and extend at least 6" beyond the exterior wall. You may install the optional House Shield as shown in Figure 6. The House Shield is used to protect the exterior wall from vent discharge. Attach a Horizontal Cap. The vent Cap should be at least 6" from the wall.

D. Follow the below listed NFPA rule for distance of exit terminal from windows and openings:

NFPA 211 6-3.5 Termination: 6-3.5 Mechanical draft systems need not comply with 6-3.1 and 6-3.3 provided they comply with the following:

(a). The exit terminal of a mechanical draft system, other than a direct vent appliance (sealed combustion system appliance),

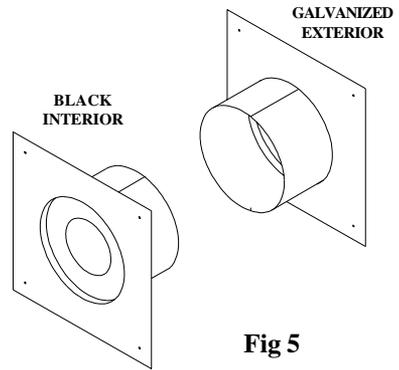


Fig 5

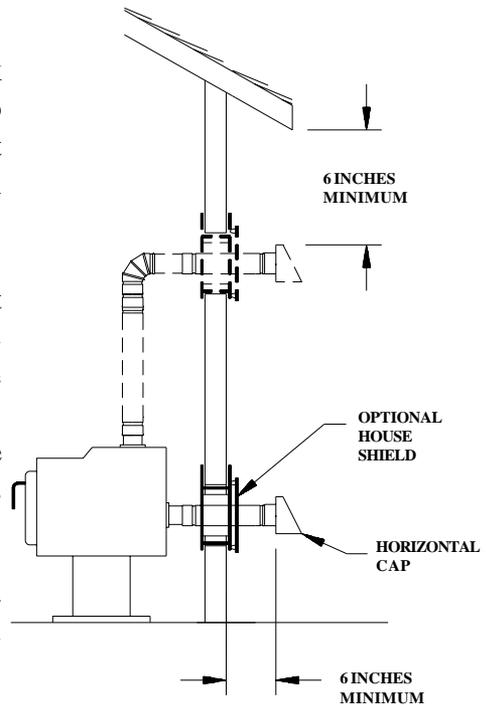


Fig 6

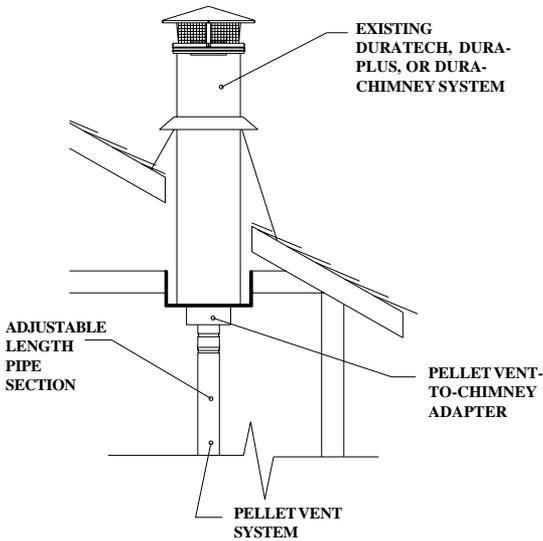


Fig 7

shall be located in accordance with the following:

- (1). Not less than 3 ft. (.91m) above any forced air inlet located within 10 ft. (3m).
- (2). Not less than 4 ft. (1.2m) below, 4 ft. (1.2m) horizontally from or 1 ft. (304mm) above any door, window or gravity air inlet into any building, and;
- (3). Not less than 2 ft. (.61m) from an adjacent building and not less than 7 ft. (2.1m) above grade when located adjacent to public walkways.

6. If it is desired to attach to an existing 6", 7" or 8" DuraTech, Dura-Plus or DCR chimney,

either roof supported, or ceiling supported: (Figure 7).

A. Remove any existing connector pipe, adaptor or connector going into the ceiling support box.

B. Visually inspect with a flashlight the condition of the interior of the chimney for cleanliness and structural integrity. All evidence of soot and creosote must be removed from the existing chimney system. If you doubt your ability to accomplish this, contact a professional chimney sweep. Chemical cleaners must be used with great discretion. Use only a chemical cleaner which is positively warranted not to cause corrosion or other harmful effects. Do any required maintenance on the existing chimney system at this time.

C. Install a Close Clearance Adaptor (available in the Dura-Vent chimney product catalog - product stock numbers (6") 8674, (7") 8774, or (8") 8874, in the existing ceiling support box, as shown in Figure 7. Note that the Close Clearance Adaptor only connects to Simpson Dura-Vent chimney systems.

D. Connect the appropriate size Chimney Adaptor to the Close Clearance Adaptor.

E. Connect the appliance to the Chimney Adaptor using a Pipe Adaptor, lengths

of pipe as required, and an Adjustable Length pipe. Slide the Adjustable Length down over the top pipe section, position the installation vertically plumb, then slip the Adjustable Length up and twist lock it to the Chimney Adaptor. Once all the components are firmly seated and properly aligned, carefully drill three 1/8" diameter holes through the outer sleeve only in the center of the slots located at the bottom of the Adjustable Length pipe. Do not penetrate the inner liner. Use (3) 3/8" length sheet metal screws to secure the Adjustable Length pipe. The completed installation will look like Figure 7.

INSTALLATION INTO A MASONRY FIREPLACE

1. Have the masonry chimney inspected by a qualified chimney sweep or installer, to determine it's structural condition.
2. Carefully read the pellet stove or insert installation instructions.
3. Measure and record the dimensions as shown in Figure 8.
4. Use dimension "A" to determine total pipe requirements. Add 12 additional inches to insure the termination is an adequate distance above the roofline.
5. The gross pipe required will be "A" dimension plus 12 inches. Five feet of this will be Flex Pipe. The remainder will be rigid pipe. For each joint, subtract 1-1/2 inches to allow for the overlap. You may need extra pipe, or an adjustable length pipe section to achieve the correct height.
6. Assemble the first rigid pipe section to the Flex Pipe, insuring that the "UP" arrows shown on the pipe labels are, in fact, pointing up. Push the sections together and twist to lock. Screws are not required for a firm lock, however, should it be desired to use them, use stainless steel sheet metal screws 1/4 inch long, being careful not to penetrate the inner liner of the pipe.

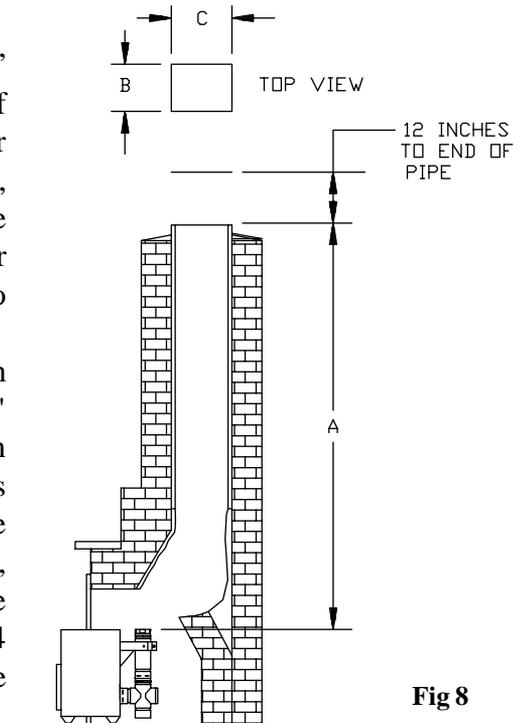


Fig 8

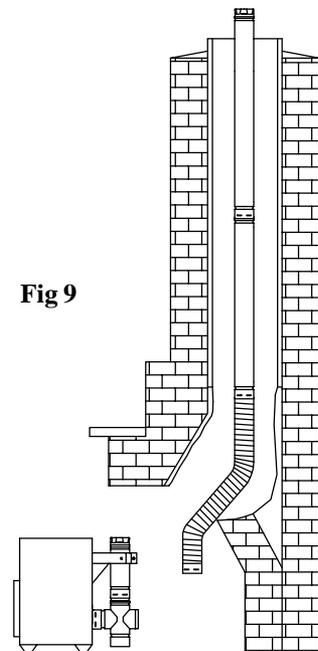


Fig 9

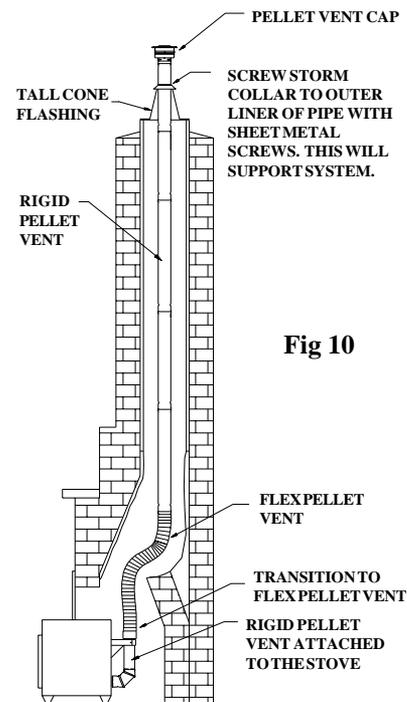


Fig 10

7. Repeat this process for the remainder of the pipe sections, and lower the assembly down the chimney as shown in Figure 9. Lower it below its normal position in order to connect the Flex Pipe to the pipe on the appliance. It may be necessary to tie a line to the top section, to pull it back up later.

8. In making the connection at the appliance, configurations other than the one shown in Figure 10 may be made. It may be necessary to contact the manufacturer of the unit to determine exactly what may or may not be done to make the correct connection. Some typical arrangements are shown in Figures 11 and 12. A Pipe Adaptor may be needed, depending on the exit size of the stove or insert collar.

9. If a Tee is necessary to make the connection, as shown in Figure 12, the Tee has a removable Clean Out Adapter on its base to enable cleaning. The Tee Support Bracket to hold the Tee to the rear of the appliance is mandatory. If it is desired to mount the Tee Support to the rear of the stove, obtain approval from the manufacturer of the stove before drilling, tapping, or performing any other alterations to the appliance.

Fig 11

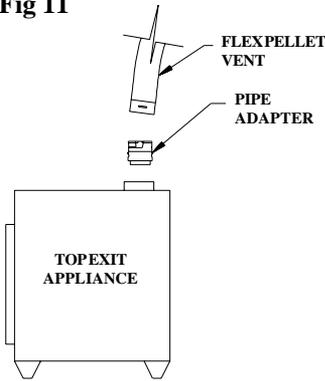
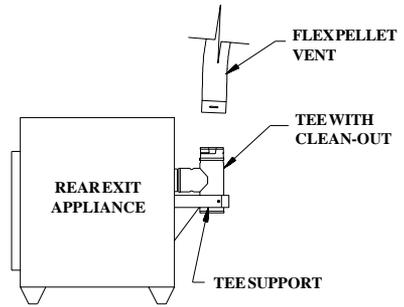


Fig 12



10. Connect the appliance to the coupling on the bottom of the Flex Pipe, by twisting to the locked position. Push the appliance into the fireplace to it's final resting place. Go to the top of the chimney and pull the vent system up to it's desired height.

11. For the termination of the pellet vent, you will use a Tall Cone Flashing, and a Storm Collar. This will require 14 inches of pipe above the top of the masonry chimney. Pull the pipe up through the flashing to the desired height. Mark where the Storm Collar will go. Slip the Storm Collar down over the pipe, and affix it to the pipe with a 1/4"-long stainless steel sheet metal screw. (Figures 13 & 14). The Storm Collar will then support the entire vent system. Install the Cap. Seal the joint at the Storm Collar, and any other joints or seams which may appear suspect. Figure 15 show a Tall Cone Flashing modified to fit a chimney where the tile liner protrudes

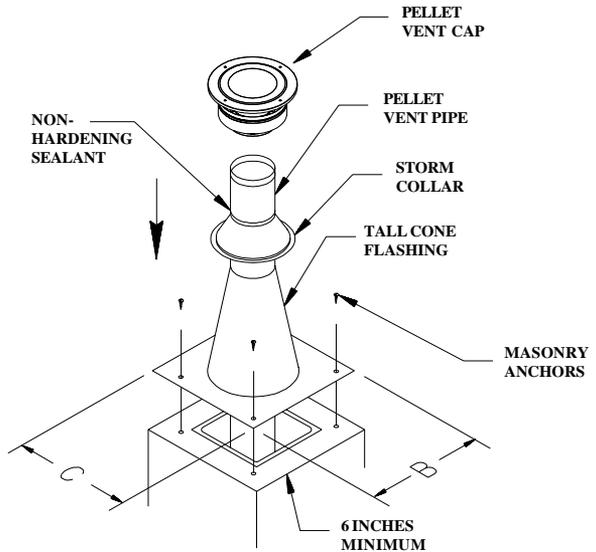


Fig 13

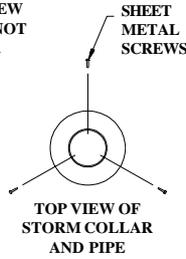
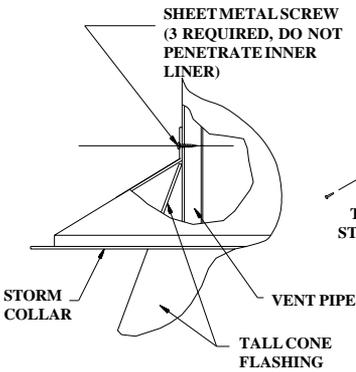


Fig 14

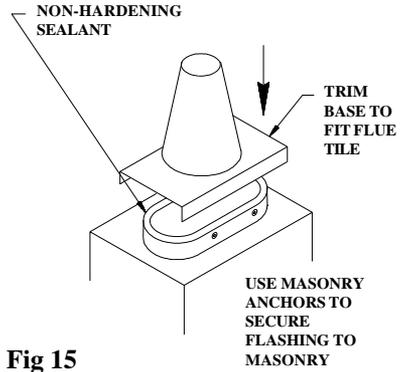


Fig 15

above the masonry, as another alternate termination technique. This completes the masonry installation.

INSTALLATION THROUGH THE SIDE OF MASONRY CHIMNEY

1. Set the appliance in it's final location and mark the center of the hole where the pipe is to penetrate the masonry chimney. (Figure 16). Insure that you comply with the manufacturer's specifications in regards to clearance and distances from combustible surfaces.

2. The pellet vent system is assembled essentially the same as previously described for installation in an existing masonry chimney with the exceptions listed:

A. No Flex Pipe is required, unless the masonry chimney has an offset. If an offset exist, then a section of Flex Pipe will be needed to accommodate the offset.

B. A Tee is installed at the bottom end of the vertical pipe. (Figure 16).

C. A Reduction Collar or a Trim Collar is required to go around the pipe section that passes through the masonry to give it a finished look. (Figure 16)

3. It will be necessary to break out the masonry around the location of the pipe center line mark to a diameter of at least 4 inches for 3 inch pipe, and at least 5 inches in diameter for 4 inch pipe.

4. Install the Tee on the bottom of the vertical pipe system and lower it down the chimney until the center of the branch of the Tee is level with the center of the hole in the masonry. Connect horizontal pipe section to the Tee branch.

5. Holding the pipe at the proper elevation, install the Storm Collar and Cap, as described in Step 11 for the fireplace installation.

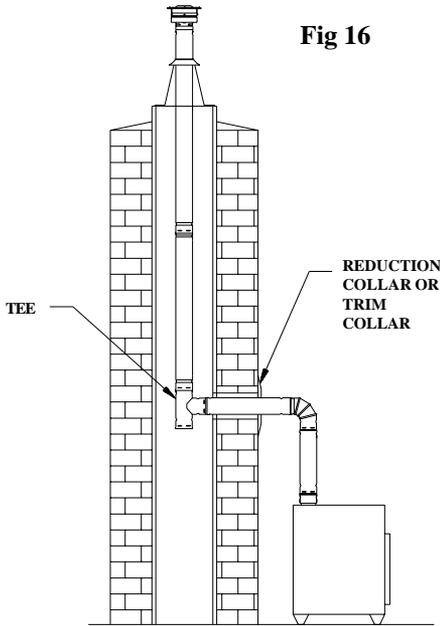


Fig 16

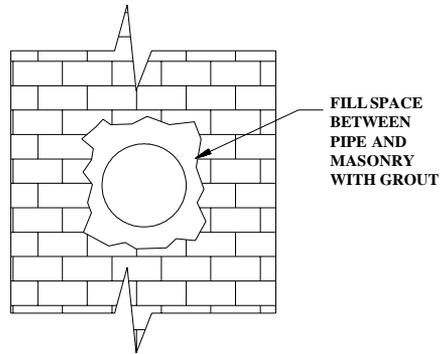


Fig 17

6. Connect the horizontal piece of pipe which goes through the masonry to the Tee by pushing it through the hole in the Tee by pushing it through the hole in the masonry, and lining it up with the branch of the Tee. Then push it into the Tee, while twisting to lock it.

7. Once the horizontal pipe section is in place, the space between the pipe and the masonry may be filled with high temperature grout, as shown in Figure 17, if desired.

8. Install the Reduction Collar or Trim Collar, the 90° Elbow, and the vertical pipe section going to the appliance. An Adjustable Pipe length will probably be needed, as well as a Pipe Adaptor.

9. Conduct a final inspection of the entire job, and review the manufacturer's operating and installation instructions once more, before firing the appliance.

INSTALLATION IN A CATHEDRAL CEILING

1. Mark a line on the side of the Cathedral Ceiling Support Box to correspond to the line of the roof pitch, as shown in Figure 18. Allow for the Support Box to protrude below the finished ceiling a minimum of 2 inches.

2. Position the appliance at it's proper location on the floor. Pay close attention to the manufacturer's installation instructions as to distances from combustibles, etc. The appliance must also be positioned so the Support Box will not interfere with

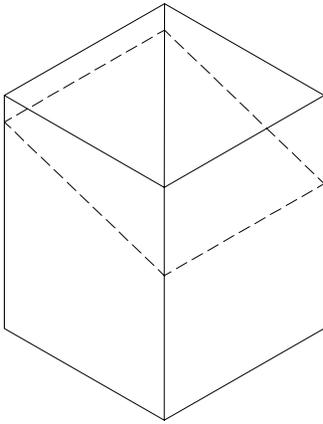


Fig 18

roof rafters or other structural framing.

3. Run a plumb line from the center of the flue exit on the stove to the ceiling. Mark the point on the ceiling where the plumb line intersects. This represents the center of the support box. Drill a small hole through the ceiling at this point, so it can be located from the top of the roof.

4. From the roof, locate and mark the outline of the Support Box.

5. Remove shingles or other roof covering as necessary to cut the rectangular hole for the Support Box. Cut the hole 1/8 inch larger than the dimensions of the Support Box. (Figure 19). The rectangular hole should be

centered on the small hole which you drilled through the ceiling to mark the location. Again, insure that you are not cutting through rafters or framing members.

6. Run the Support Box through the roof as shown in Figure 20, and place it so that the bottom of the Support Box protrudes at least 2 inches below the finished ceiling. Align the Support Box vertically and horizontally with a level. Temporarily tack the Support Box in place through the inside walls and into the roof sheathing.

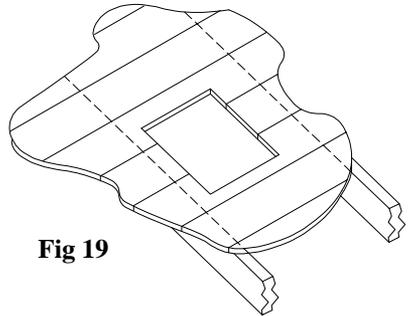


Fig 19

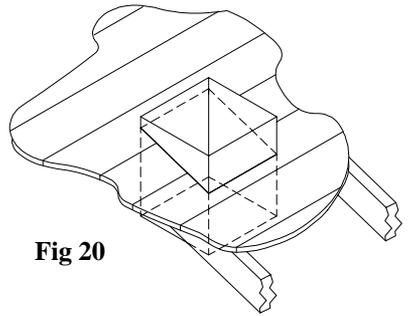


Fig 20

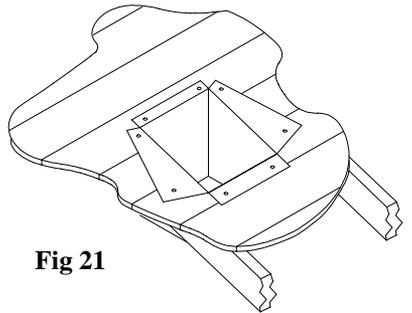


Fig 21

7. Using tin snips, cut the Support Box from the top corners down to the roof line, and fold the resulting flap over the roof sheathing. (Figure 21). Before nailing it to the roof, run a bead of non-hardening sealant around the outside top edges of the Support Box so as to make a seal between the box and the roof. Clean out any combustible material or debris from inside the Support Box.

8. Place the Pipe Clamp, (which comes as a component of the Support Box) around the top of the hole in the bottom of the Support Box. (Figure 23).

9. Connect the necessary amount of pipe sections to reach the stove at a point where the Cap will be at least 12-inches above the roof. (Figure 22).

10. Run the assembled pieces of pellet vent pipe down through the Clamp of the Support Box and connect to the appliance with a Pipe Adaptor. Using a level, make slight adjustments in the position of the appliance until the pipe is truly vertical. Tighten the bolts in the Clamp. Note that the overall length of the pellet vent pipe as assembled, can be no longer than 42 feet.

11. Slip the Flashing over the pipe section(s) protruding through the roof. Secure the base to the roof with roofing nails as shown in Figure 24. Insure that the roofing material overlaps the top edge of the Flashing. (Refer back to Fig 2)

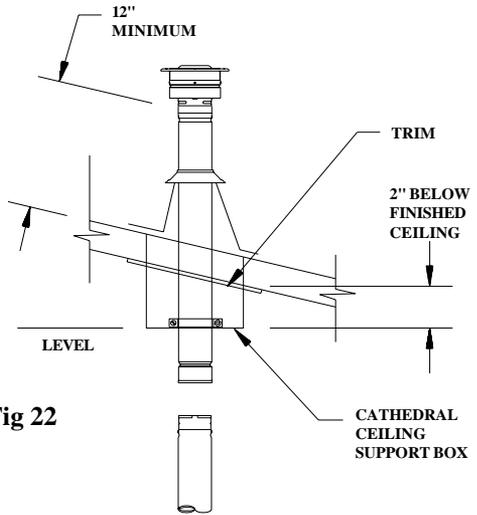


Fig 22

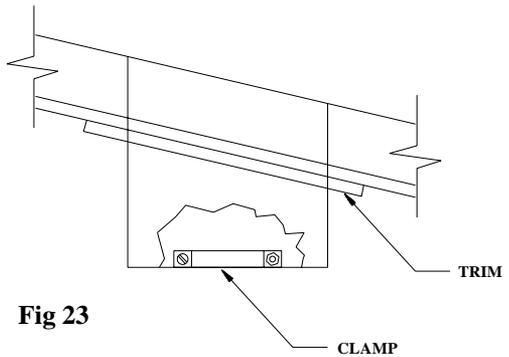


Fig 23

CLEANING AND MAINTENANCE

1. Have your system cleaned by a professional chimney sweep if you have doubts about your ability to clean it. Use a plastic, wood, or flexible steel brush. Do not

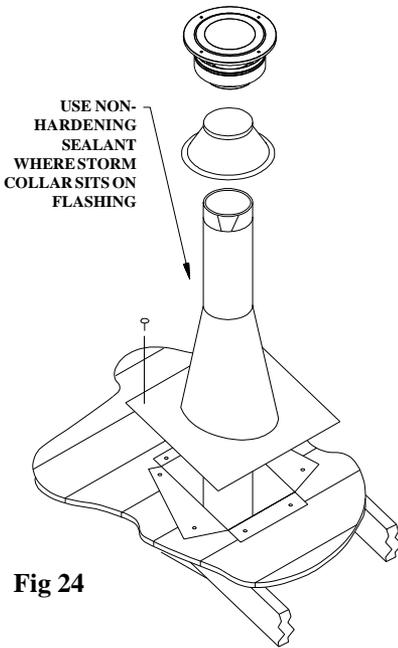


Fig 24

use a stiff brush that will scratch the stainless steel liner of your system.

2. Pellet vent systems must be installed so that access is provided for inspection and cleaning.

3. The pellet vent should be inspected at least once every month during the heating season.

4. Chemical cleaners must be used with great caution. Use only those which are absolutely guaranteed not to corrode or have any other harmful effects.

5. To increase pellet vent life, coat all exterior metal parts with high temperature, rustproof paint. This is highly recommended, particularly in areas near the ocean.

6. In case of fire, close all appliance draft openings, shut off pellet appliance and call your Fire Department. Do not use the appliance or vent until it has been inspected for possible damage.

7. Simpson Dura-Vent is not responsible for flue by-products that might discolor roofs or walls.

WARRANTY

Simpson Dura-Vent warrants Pellet Vent for a period of 25 years from date of installation. The warranty includes all components and fittings except Caps. Termination Caps carry a five year warranty. All warranties, whether expressed or implied, shall be limited to replacement (exclusive of installation costs) of the product found to be defective under this warranty providing all recommended installation and maintenance instructions are followed.

Other products made by
Simpson Dura-Vent:

DuraTech Chimney

Dura-Plus Chimney

Direct Vent GS Direct Vent System

Dura-Vent Gas Vent (B-Vent)

Dura-Black Single Wall Stovepipe

DVL Close Clearance Connector Pipe

Dura-Liner Masonry Reliner

Dura/Connect & Dura/Connect II

Single- and Double-Wall Flexible

Connectors for Gas Vent

Dura-Flex Masonry Reliner

for Gas Appliances



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