



VORTEX
venting solutions / solutions d'évents

6-Inch Insulated Masonry Thimble



Installation Instructions

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

Read through these instructions before beginning your installation. Failure to install according to these instructions will void the manufacturer's warranty and may have an effect on your homeowner's insurance and UL and ULC Listing status.

READ AND KEEP THIS MANUAL FOR REFERENCE

TABLE OF CONTENT

General Product Information3
Codes & Permits 3
Product Applications..... 3

General Specifications4
Clearances 4
Safety Precautions 4

Installation Preparation5
Equipment, Tools and Hardware 5
Approved Installations 5
Safety Considerations 5

Installation Instructions6

Maintenance Instructions.....13
Maintenance Procedures..... 13

VORTEX limited lifetime warranty14

GENERAL PRODUCT INFORMATION

The quality and workmanship of *6" Vortex Insulated Masonry Thimble* is reflected in the recognition an accredited laboratory has given these products. The rigorous UL and ULC testing and listing requirements, is your assurance of consistent quality in materials and manufacturing standards used for this Vortex product.

In addition, the industry leading Warranty on *6" Vortex Insulated Masonry Thimble* is a further indication of our confidence in the quality of these products. Thank you for choosing Vortex!

6" Vortex Insulated Masonry Thimble product is UL103HT & ULCS641 listed to 2100 degrees in 6".

6" Vortex Insulated Masonry Thimble must be installed, by a qualified chimney or venting professional, according to these installation and maintenance instructions. Read through and become familiar with these installation instructions before installing this product. Failure to follow these instructions may void the manufacturer's warranty, the UL and ULC listing status of this product, and may result in a hazardous installation.

Keep these instructions for future reference.

CODES & PERMITS

The criteria for installation must be in conformance with the specifications contained in the latest version of the NFPA 211 (Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances) and local or state building codes, whichever has jurisdiction. *6" Vortex Insulated Masonry Thimble* is an engineered and listed through-the-wall insulated thimble assembly that reduces the minimum 18 inch clearance to combustibles required by NFPA 211 standard. Contact local building or fire officials about restrictions and installation inspection in your area. It may or may not be necessary to obtain permits before installing the *6" Vortex Insulated Masonry Thimble*. ALWAYS CONTACT YOUR LOCAL BUILDING OFFICIAL OR FIRE OFFICIAL REGARDING PERMITS, RESTRICTIONS AND INSTALLATION INSPECTIONS IN YOUR AREA.

PRODUCT APPLICATIONS

A heating appliance may also be connected to a masonry chimney, provided the chimney complies with the construction rules found in the building code enforced locally. The chimney must have either a clay liner or a suitably listed stainless steel liner.

6" Vortex Insulated Masonry Thimble is intended for use in conjunction with any residential heating appliance burning solid fuels. *6" Vortex Insulated Masonry Thimble* is to be used as a thimble/wall pass thru to connect appliances to interior or exterior masonry chimneys while having to pass through a combustible wall in order to connect to the chimney.

GENERAL SPECIFICATIONS

CLEARANCES

You must maintain at least a 2-inch air space clearance between **interior masonry chimneys** (which have any portion of the chimney located within the exterior wall of the building) and combustible materials. Ensure that building insulation, electrical wiring and/or any other combustible materials do not violate the required 2-inch airspace clearance.

The minimum air space clearance between **exterior masonry chimneys** (which have the chimney completely outside the exterior wall of the building, excluding the soffit or cornice area) and combustible material shall be at least 2 inches. Do not fill any required clearance space with insulation or any other materials. Ensure that building insulation, electrical wiring and/or any other combustible materials do not violate the required 2" clearance required for a proper installation of *6" Vortex Insulated Masonry Thimble*.

SAFETY PRECAUTIONS

The installation instructions provided with *6" Vortex Insulated Masonry Thimble* are intended as a guide to **only** assist a qualified chimney professional/installer. Be sure to have the chimneys integrity inspected before installing *6" Vortex Insulated Masonry Thimble*. Inspect the chimney for any loose or eroded mortar, cracks in the masonry, missing bricks, any internal obstructions, unused flue holes, and excessive creosote formation. **Do not install** *6" Vortex Insulated Masonry Thimble* before fixing any obstructions in the chimney.

If the chimney needs to be cleaned- then all cleaning to the chimney shall **only** be done by a professional certified chimney sweep.

The wall trim of *6" Vortex Insulated Masonry Thimble* should be installed on approved fire retardant sheetrock, millboard, brick or their like.

6" Vortex Insulated Masonry Thimble must be installed so there are no obstructions below or above the wall protector. *6" Vortex Insulated Masonry Thimble* should not be located directly behind a heating appliance (i.e. straight out of wall behind appliance).

6" Vortex Insulated Masonry Thimble must be properly sized for your heating appliance. The chimney must be sized in accordance with the appliance manufacturer's instructions. In the cases where the chimney system is sized incorrectly, not in compliance with the current local building codes, or in poor physical condition then a new lining system should be installed and inspected before installation of *6" Vortex Insulated Masonry Thimble*.

Appliance Flue Collar Diameter	Use <i>6" Vortex Insulated Masonry Thimble</i> Part #
6"	VOD0240

INSTALLATION PREPARATION

EQUIPMENT, TOOLS AND HARDWARE

Tools:

Reciprocating Saw	Level
Keyhole Saw	Tape Measure
Drill	Caulk Gun
Hammer	Screwdrivers
Metal Snips	
Masonry Drill Bit (1/4" Diameter)	Angle Grinder (Cut-Off Wheel)

Equipment:

Ladder
Safety Glasses
Protective Gloves

Hardware:

Framing Nails
High-Temp Sealant
Wood Screws
Masonry Anchor set or Tapcons
#8 x 1 1/4" Screws
Fastening Pipe Clamp

APPROVED INSTALLATIONS

Use of any parts or materials not specified in this installation manual may not provide a listed system and may void 6" *Vortex Insulated Masonry Thimble* warranty. Do not use damaged or modified parts. There are three types of installations in which a 6" *Vortex Insulated Masonry Thimble* may be used;

- Where a thimble hole already exists in a properly lined chimney.
- An installation that requires a new thimble.
- An installation incorporating a new UL or ULC listed stainless steel liner system.

The step-by-step installation instructions below will cover all three installations.

SAFETY CONSIDERATIONS

Caution: The ends or edges of 6" *Vortex Insulated Masonry Thimble* can be sharp! We strongly recommend the use of gloves during installation.

Warning: Be sure that 6" *Vortex Insulated Masonry Thimble* does not come in contact with electrical or any other wires. Be sure to check for any other obstacles that could be harmful to the installer or home owner before beginning the installation. **6" *Vortex Insulated Masonry Thimble* may not pass through an attic, closet, concealed space, floor, ceiling, or roof- no exceptions.**

INSTALLATION INSTRUCTIONS

Step 1- Position Thimble: Determine the location of the opening where you want the masonry adapter section of 6" Vortex Insulated Masonry Thimble to pass through the wall. In general the higher up on the wall you install the adapter the better, this will improve draft and reduce the cost of the chimney liner.

Keep in mind that a single wall stove pipe must be at least 18" from a ceiling.

If the chimney is constructed with a space beyond the exterior wall of the house, check the outside of the house for weather tightness around the periphery of the back plate. Do not place insulation in this area. Maintain at least 1" air space between the masonry and any combustible material.

Step 2- Cut & Frame Opening: Cut and frame an opening in the combustible wall using **Table 1** to determine your rough opening dimension size. Make sure your rough opening is centered with your chimney flue opening in masonry. If the installation requires you to make a new flue hole in the chimney then follow **Table 1** for the hole size.

CAUTION: Before cutting the opening into the combustible wall make sure there are no electrical wires or plumbing pipe within this section of the wall. If a wall stud or any other combustible material is encountered within the opening, it will need to be removed. Appropriate framing and headers if needed must be installed to insure a safe installation of 6" Vortex Insulated Masonry Thimble. (Refer to Table 1 and Fig. #1 regarding rough framing dimensions for the thimble pipe diameter occupied).

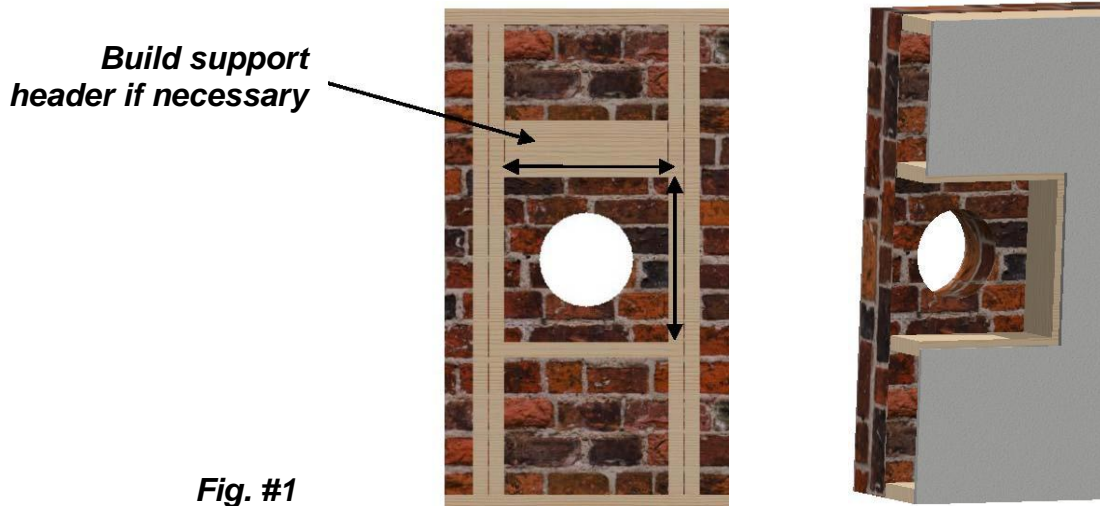


Fig. #1

Table 1 - Rough Opening Dimensions for Combustible Wall:	
6" Vortex Insulated Masonry Thimble	6"
Hole for chimney	6 1/4"
Square rough opening for combustible wall	13 3/4" X 13 3/4"

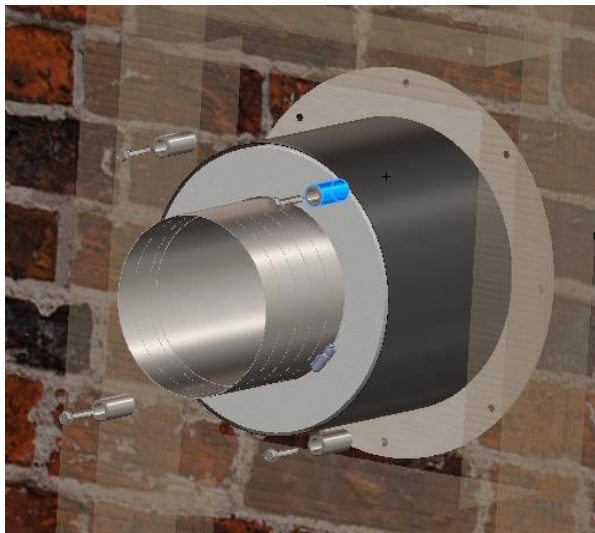
Step 3- Mounting Masonry Adapter Section:

Place the masonry mounting flange flat against the open area on the masonry chimney and center the masonry opening with the pipe opening attached to the masonry adapter section of 6" Vortex Insulated Masonry Thimble (see **Fig. #2**). Once in desired location mark the holes that you will be applying masonry anchors or tapcons to **(we recommend you use at least 4x of the 8x masonry holes provided in the masonry mounting plate for a secure hold to the masonry)**. Remove the masonry adapter section and drill out the markings you made with a masonry bit. After your holes are drilled apply an exterior rated high temp silicone caulking to the back of the mounting plate then insert your anchors and place the masonry adapter section with the masonry mounting plate back over your holes. Make sure the mounting holes line up correctly, and securely fasten using your anchor screws or tapcons. See illustrations below for masonry anchors and tapcon installation of masonry mounting plate. **Note: Be sure to check all clearances required before mounting the masonry adapter section of 6" Vortex Insulated Masonry Thimble.**

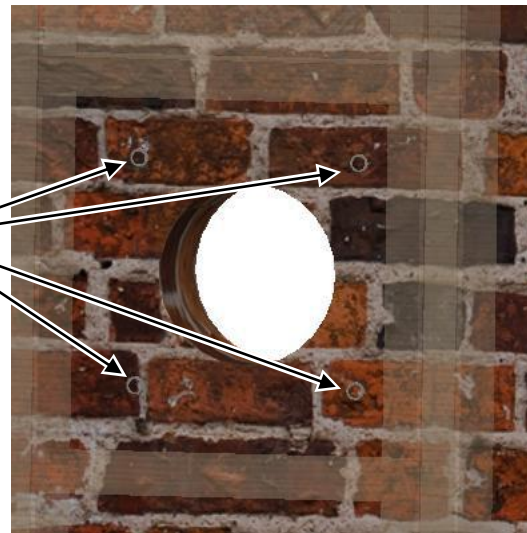


Masonry Anchor Installation:

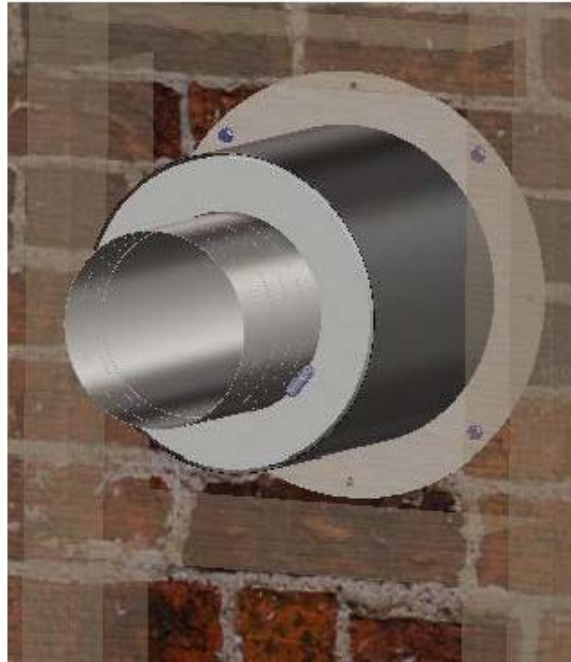
Step A
Mark out your holes for the masonry anchors.



Step B
Drill holes for the anchors, and then insert anchors into masonry.

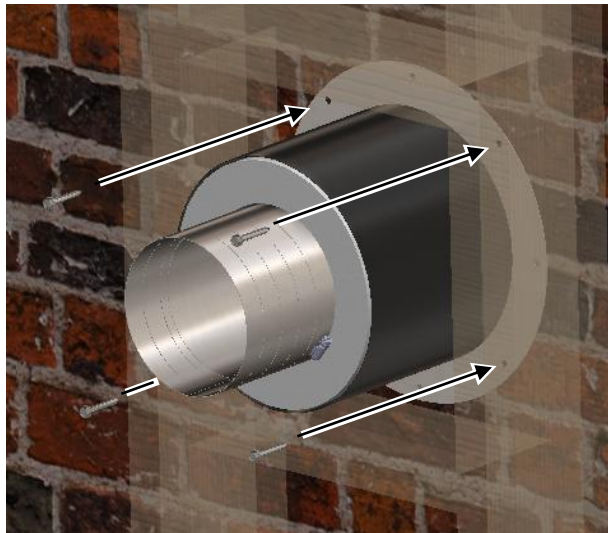


Final Step
Screw your anchor screws into the anchors.



Tapcon Installation:

Step A
Mark out your holes for the Tapcons.



Final Step
Screw your Tapcons into holes in the masonry flange.



Step 4- Cut Inner Pipe to Length:

After the masonry adapter section is mounted securely you may have to cut the inner pipe to length before attaching the second half of 6" Vortex Insulated Masonry Thimble. Depending on the width of your combustible wall you will have to cut any extra length off of the insulated inner pipe using a pair of hand shears or for the cleanest cut we recommend an angle grinder with a cut-off wheel attachment, the pipe has 1" cut-outs in it to follow for precision cutting (see **Fig. #3** and **#4**). 6" Vortex Insulated Masonry Thimble is designed to adjust from 5" thru 14" wall structures. The fastening clamp located in the insulated inner pipe can be moved to any of the 1" spaced clamp cut-out locations. (see **Fig. #3**)

Fig. #3

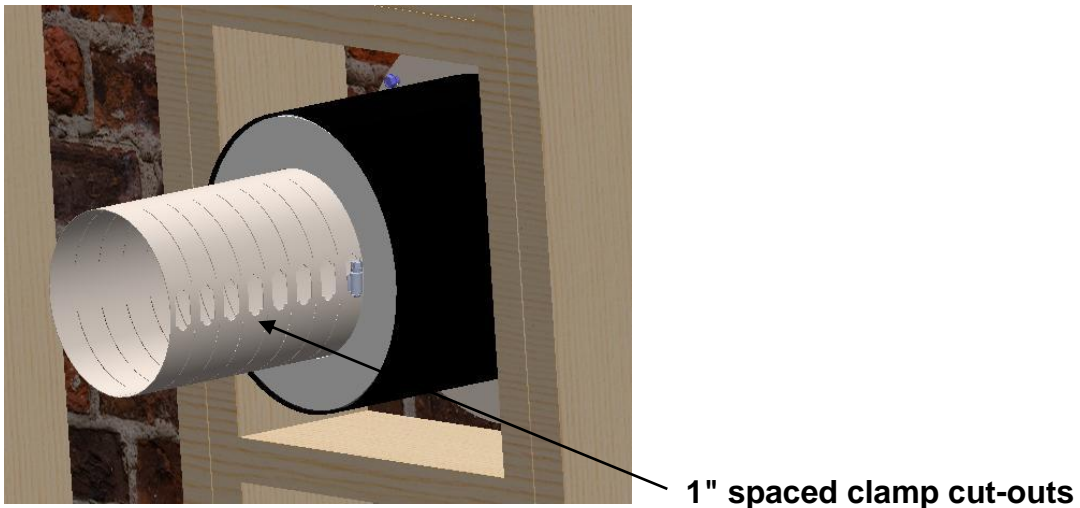
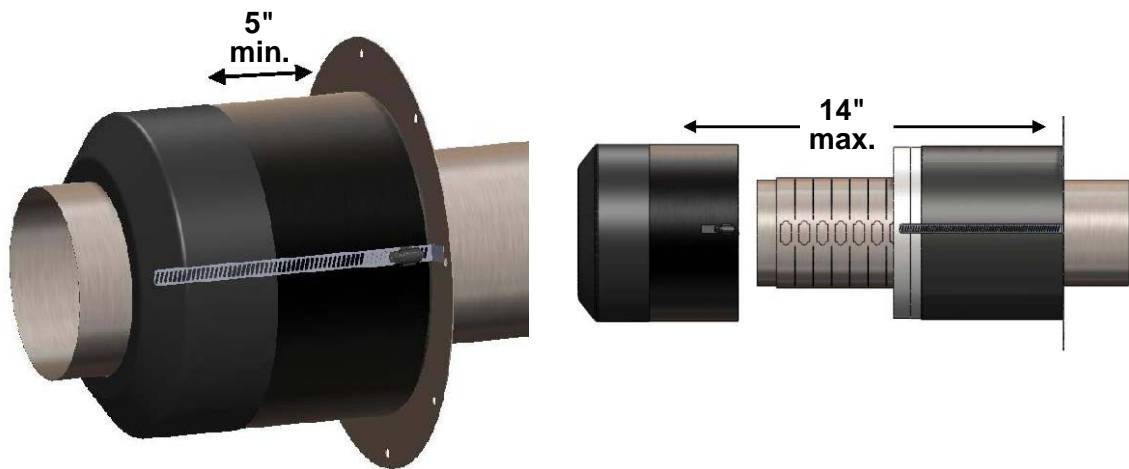


Fig. #4



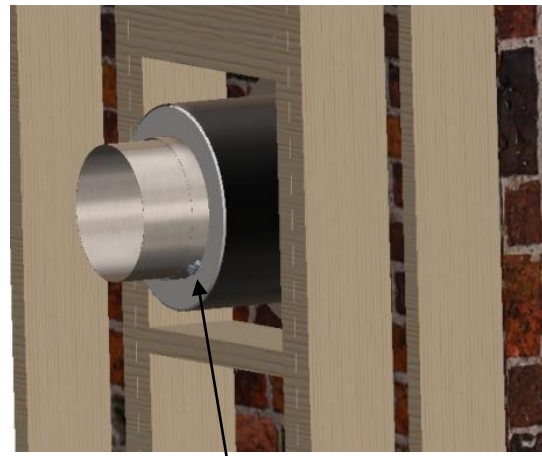
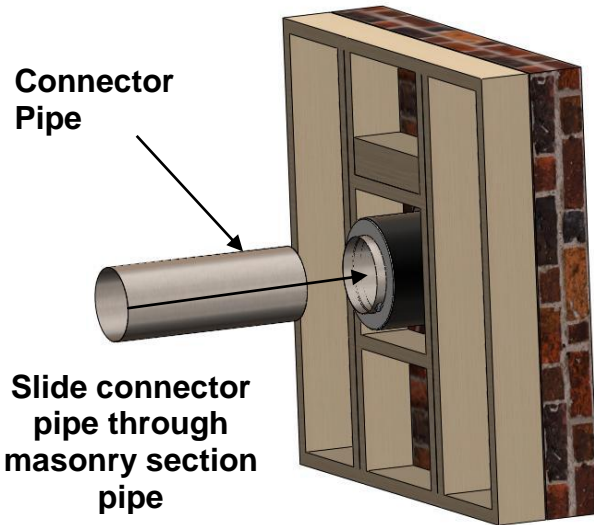
Note: The thimble must be adjusted so that it protects 2-1/2" out from the finished interior wall surface.



Step 5- Cut and Fasten Connector Pipe:

If need be, you can cut your connector pipe down to the desired length per installation by determining your distance from the combustible wall to the stove pipe and the thickness of the two walls the connector pipe is spanning through for the chimney connection. After your connector pipe is sized correctly you should make the connection into the chimney or liner using our snout or rigid connection pipe, then push the connector pipe through the masonry adapter section pipe and tighten the clamp onto the connector pipe to fasten securely (see **Fig. #5**).

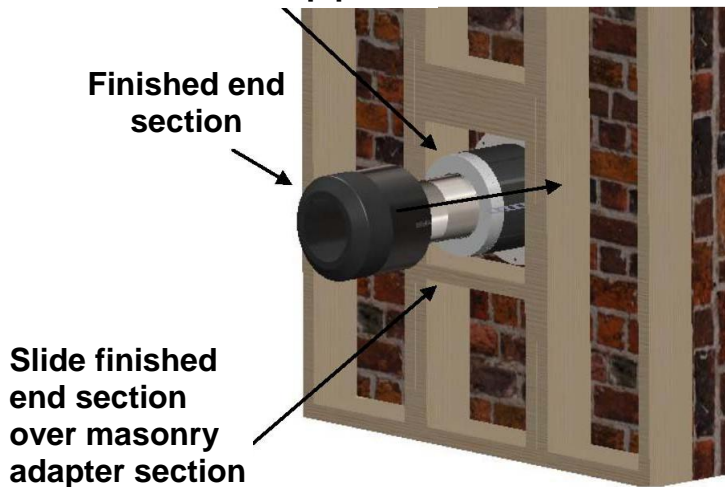
Fig. #5



Step 6- Finished End:

Once the connector pipe is fastened you can now add your 1" insulation rings by sliding them over the connector pipe. Make sure you push the insulation rings on snug to fit as many as possible. Before you slide the finished end outer pipe over the masonry adapter section outer pipe, make sure there is insulation rings inside the finished end to compress for a tight fit. After sliding the finished end outer pipe into place tighten the "linear clamp" for fastening (see **Fig. #6**).

Slide 1" insulation rings over the connector pipe



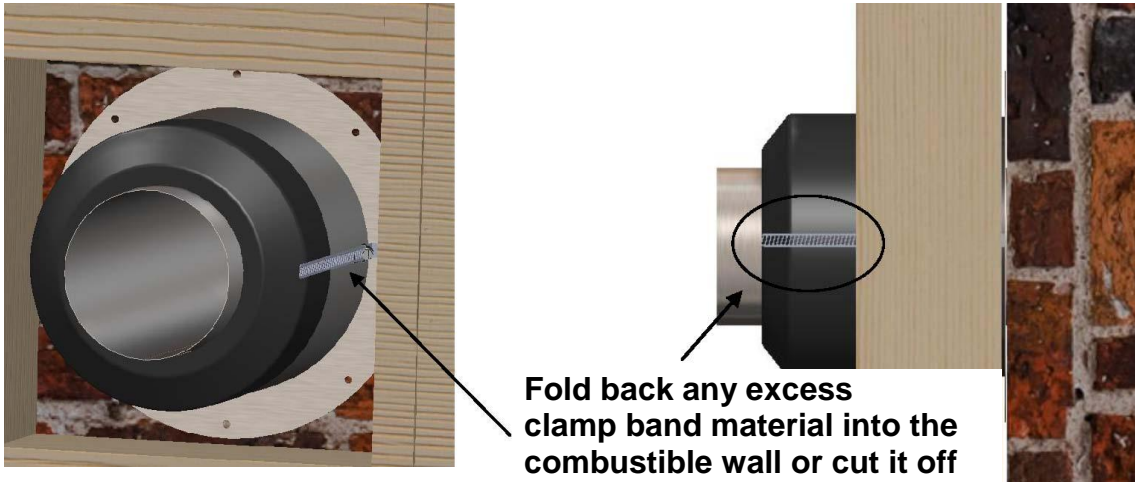
Fasten pipe sections together using attached "linear clamp" provided on each side



Fig. #6

Step 7- Linear Clamp:

Before replacing the finishing wall surface for the cut-out of 6" Vortex Insulated Masonry Thimble, check for any excess clamp band material that may hang past the combustible wall. You can either fold back any excess clamp band material back into the combustible wall cut-out space or cut it off (see Fig. #7).



Fold back any excess clamp band material into the combustible wall or cut it off

Fig. #7

Step 8- Finishing Trim:

After replacing the finishing wall surface for the cut-out of 6" Vortex Insulated Masonry Thimble (see Fig. #8), you can place the finishing trim over the finished end of 6" Vortex Insulated Masonry Thimble and use the two screw holes to fasten the finishing trim using the black finish screws provided (see Fig. #9).

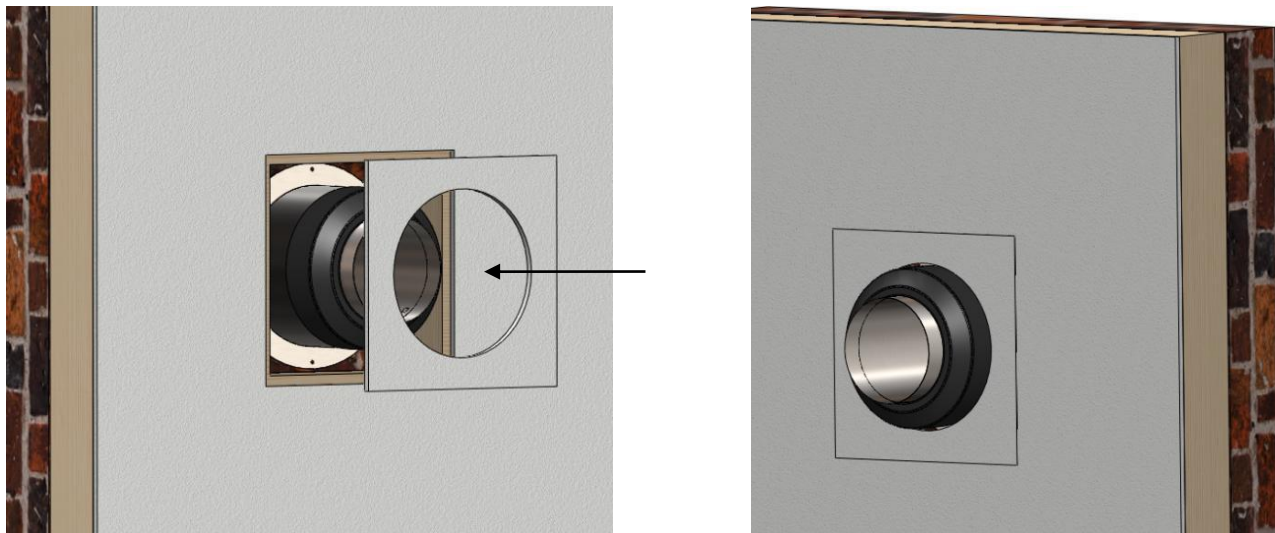


Fig. #8

Use the black finish screws provided to fasten the finishing trim securely to the wall

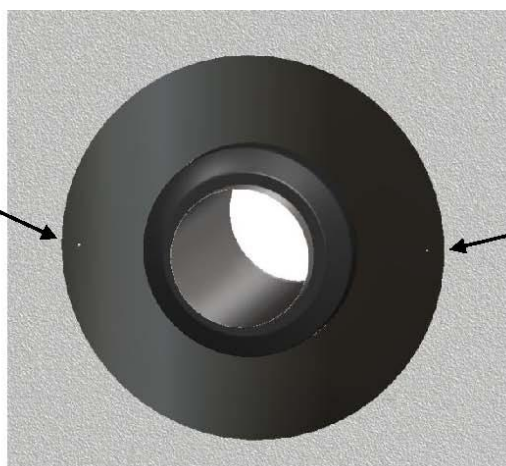


Fig. #9

Step 9- Final Step:

Once 6" Vortex Insulated Masonry Thimble is properly installed you can now attach your connector pipe from the thimble to your appliance pipe.

MAINTENANCE INSTRUCTIONS

MAINTENANCE PROCEDURES

It is important that *6" Vortex Insulated Masonry Thimble* and chimney system be checked and cleaned frequently during the heating season or as per stove manufacturer's instructions. This is for the safety of the homeowner and necessary to meet the warranty requirements of *6" Vortex Insulated Masonry Thimble*. As noted above, in the case of solid fuel burning appliances, more frequent maintenance may be required, depending on use and the appliance manufacturer's instructions. The entire system, from the connection at the appliance to the top of the chimney must be completely inspected and cleaned by a professional certified chimney sweep.

Formation of Creosote and Soot - Formation and Need for Removal

Note: Chimney fires are dangerous and preventable, we strongly encourage you to have your chimney liner cleaned regularly.

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 flue of a slow burning fire. As a result creosote makes an extremely hot fire.

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

To clean the chimney lining system it is recommended to perform the following:

- 1) Remove chimney cap by either removing the 4 bolts on the cap lid or by loosening the clamp band.
- 2) Select the proper sized chimney brush to clean the chimney. Be sure the brush head passes throughout the complete length of the liner, including the connectors, terminals and tees.
- 3) In some instances, proper cleaning will require removing the appliance and disassembling the connector assembly to thoroughly inspect and clean parts that cannot be reached otherwise.
- 4) Inspect and clean the chimney cap. Spark arrestors and other screens may be necessary or required in some areas, but may be susceptible to blockage from creosote or through freezing moisture in areas of low ambient temperature.
- 5) Reinstall chimney cap.
- 6) Before the initial firing of the appliance, check the appliance's operating instructions for initial firing precautions.

Additional Information

After cleaning or inspecting the chimney or connector system, check *6" Vortex Insulated Masonry Thimble* for secureness of all parts. Make sure the chimney connector is routed to the chimney at the required upward pitch toward the chimney.

VORTEX LIMITED LIFETIME WARRANTY DOUBLE WALL CONNECTOR PIPE

The warranty:

The manufacturer's warranty applies only to the original purchaser and is not transferable. Subject to the conditions and exclusions set forth below, the manufacturer warrants that its products will be free from manufacturing if properly installed. This warranty only covers replacement of defective double wall connector pipe components in a residential installation. This warranty is void if the double wall connector pipe is used in a different application than what it is designed for. This limited **warranty** is the sole and exclusive remedy, offered in lieu of all **other warranties**, expressed or implied.

Warranty conditions:

The warranty of the double wall connector pipe and its components are subject to the following conditions:

- 1) Brand new products with proof of purchase only;
- 2) Products must have been purchased from an authorized *SBI* dealer;
- 3) Installation in accordance with the instructions supplied with this product and all local and national building codes;
- 4) Normal use with a residential wood appliance that has been certified by an accredited laboratory: wood fireplace, wood stove, wood furnace or wood boiler;
- 5) The double wall connector pipe is designed to operate at a maximum continuous temperature of 650 degrees Celsius (1,200 degrees Fahrenheit) or less;
- 6) The double wall connector pipe system must be cleaned and inspected on an annual basis by a chimney professional at intervals of no more than 12 months each, starting at the date of purchase and as long as the warranty period applies. Receipts verifying that maintenance was performed must be kept;
- 7) Products under this warranty must have been produced after the revision date indicated on the cover page of this document;
- 8) The chimney must have a cap installed;
- 9) Parts or components from other manufacturers are not covered by this warranty.

Warranty application in the case of a replacement:

	Parts	Labour
1 to 10 years¹	100% (100% of the purchase price at the time of the replacement)	N/A
11 to 15 years¹	50% (a 50% rebate applies to the purchase price at the time of the replacement)	N/A
16+ years¹	25% (a 25% rebate applies to the purchase price at the time of the replacement)	N/A

¹ From the date of purchase.

The manufacturer may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of any warranted but defective parts or supply any replacement parts under warranty without any charge.

Warranty exclusions:

This warranty does not cover:

- 1) Labour and installation costs;
- 2) Products that have been altered, modified or repaired since shipment from factory;
- 3) Products that have been moved from their original installation site;
- 4) Damage (to products, appliances or structure) caused by misuse, abuse, improper installation, lack of maintenance, improper inspection or any other negligence;
- 5) This warranty does not cover incidental or collateral damages caused by smoke, fire, flood, strong winds, "acts of God", or any other contingency beyond the manufacturer's control;
- 6) Use of improper chimney cleaners or any improper solvents/chemicals will void all applicable warranties;
- 7) Does not cover any solid fuel other than wood;
- 8) Damage resulting from the use of driftwood, pressure-treated lumber, wood containing salt, chemicals, or any prohibited material will void all applicable warranties.

Claim process:

Shall your unit or any component be defective, contact immediately your *SBI* dealer. Prior to your call, make sure that you have the following information necessary for your warranty claim treatment:

- Your name, address and telephone number;
- Model name as indicated on the certification label or instruction sheets;
- Original invoice and dealer's name;
- Nature of the defect and any relevant information.

Before shipping your unit or defective component to the manufacturer, you must first obtain a return authorization number. Supporting documents or digital pictures may be required to support the claim. Any merchandise shipped to the manufacturer without authorization will be refused automatically and returned to sender.

Manufactured by:

Stove Builder International Inc.

250, rue de Copenhague, St-Augustin-de-Desmaures
(Quebec) Canada G3A 2H3

Tel: (418) 878-3040 Fax: (418) 878-3001