

Pellet Vent

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 PELLET VENT BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

This Pellet Vent Pipe meets the requirements of the NFPA 211, CSA B365, UL 641, CAN/ULC S609 and ULC/ORD C441 Standards.

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 Standards in force.

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GENERAL PRODUCT INFORMATION

The quality and workmanship of *Vortex Pellet Vent Pipe* is reflected in the recognition by an accredited laboratory has given these products. The rigorous UL and ULC testing requirements are your assurance of consistent quality, in materials and manufacturing standards, used for this chimney system.

In addition, the industry leading Warranty on Vortex Pellet Vent Pipe is a further indication of our confidence in the quality of these products. Thank you for choosing Vortex!

The Vortex Pellet Vent Pipe is UL 641, CAN/ULC S609 and ULC/ORD C441 listed to 570 °F or 300 °C in 3" (76mm) and 4" (102mm) Diameters.

This product 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 and the Standards in force for this product.

CODES & PERMITS

The criteria for installation must be in conformance with the specifications contained in the latest version of the NFPA 211 (USA) (Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances) or CSA B365 (Canada) (Installation code for solid-fuel-burning appliances and equipment) and local or state building codes, whichever has jurisdiction. It may be necessary to obtain permits before installing the chimney system. ALWAYS CONTACT YOUR LOCAL BUILDING OFFICIAL OR FIRE OFFICIAL REGARDING PERMITS, RESTRICTIONS AND INSTALLATION INSPECTIONS IN YOUR AREA.

PRODUCT APPLICATIONS

Vortex Pellet Vent Pipe is tested and listed to UL 641, CAN/ULC S609 and ULC/ORD C441 for venting listed wood or corn pellet fuel fired appliances producing flue gas temperatures between $100~^{\circ}$ C ($212~^{\circ}$ F) and $300~^{\circ}$ C ($570~^{\circ}$ F)

GENERAL SPECIFICATIONS

When selecting the location for an appliance and venting pipe it is necessary to take into account the rules of NFPA 211 (USA) or CSA B365 (Canada).

To calculate the Equivalent Vent Length (EVL) needed for your installation, follow the pellet heater manufacturer's instruction manual.

CODES & CLEARANCES

Vortex Pellet Vent Pipe is listed by an accredited agency as a vent for listed pellet stoves. The minimum clearance from pellet vent to combustibles is 1" (2.5 cm). Never fill any required clearance space with insulation or any other materials.

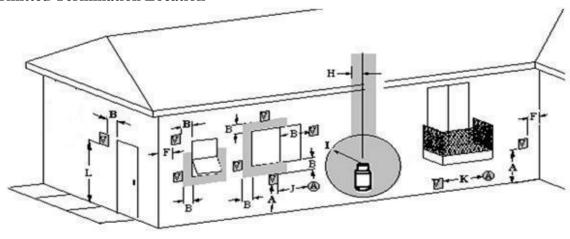
Termination Location

Termination should not be located so that hot exhaust gases can be a hazard. They can reach temperatures of 500 °F and cause serious burns.

CAUTION: TERMINATION COLLAR (SPARK ARRESTER) IS MANDATORY.

Refer to NFPA 211 (USA) or CSA B365 (Canada) for rules for the distance of exit terminal from windows and openings. The exit terminal of a mechanical draft system, other than a direct vent appliance shall be located in accordance with the following.

Permitted Termination Location



VENT TERMINAL SORTIE DU TUYAU D'EVACUATION

AIR SUPPLY INLET ENTREE D'AIR FRAIS

AREA WHERE TERMINAL IS NOT PERMITTED ZONE OU LA SORTIE N'EST PAS PERMISE

Canada:

Canaaa.			
Letter	Min. clearances	Description	
A	12" (30 cm)	Clearances above grade level or any adjacent surface that might support snow, ice, or debris	
В	39" (100 cm)	Clearance to window or door that may be opened	
F	39" (100 cm)	Clearance to corner or adjacent wall	
Н	39" (100 cm)	Not to be installed above a meter/regulator assembly within 39" (100 cm) horizontally from the vertical center-line of the regulator and for 15' vertically	
I	72'' (183 cm)	Clearance to gas service regulator vent outlet or within 39" (100 cm) an oil tank vent or an oil tank fill inlet	
J	39" (100 cm)	Clearance to the combustion air inlet to any other appliance	
K	72" (183 cm)	Clearance to a mechanical air supply inlet	
L	84'' (213 cm)	Clearance above paved side-walk or a paved driveway located on public property	
	39" (100 cm)	Clearance to property boundary	
		A vent shall not terminate underneath a veranda, porch, or deck	

United States:

- Not Less than 36" (91 cm) above any forced air inlet located within 10 feet (305 cm);
- Not Less than 48" (122 cm) below and horizontally from, or one foot (30 cm) above, any door, window or gravity air inlet into any building;
- Not Less than 24" (61 cm) from an adjacent building and not less than 84" (213 cm) above grade when located adjacent to a public walkway.
- Cannot be located less than 12 inches (300mm) above grade.
- Cannot be located above a gas meter/regulator within 3 feet (900mm) horizontally of the vertical center line of the regulator.
- Not within 6 feet (1.8 meters) of a gas service regulator vent outlet.
- Other restrictions may apply. See NFPA 211 for further information.

INSTALLATION PREPARATION

EQUIPMENT, TOOLS AND HARDWARE

Tools:

Plumb Bob Reciprocating Saw

Keyhole Saw Metal Snips Hammer Drill Level

Tape Measure Caulk Gun Screw Drivers **Equipment:**

Ladder

Safety Glasses Protective Gloves Hardware:

Framing Nails Roofing Nails

High Temperature Silicone Sealant

Vortex Pellet Vent Components (Part No.)					
Stove Adapter	Attic Insulation Shield (VOP-AISxx)	Ceiling Support –	Ceiling Support –		
(VOP-SAxx)		Round (VOP-CSRxx)	Square (VOP-CSSxx)		
Wall Support	Masonry Adapter	Elbow – 45 degree	Elbow - 90 degree		
(VOP-WSxx)	(VOP-MAxx)	(VOP-ELxx45)	(VOP-ELxx90)		
Finishing trim kit (VOP-STKxx)	Pellet Pipe Lengths	Chimney Adapter	Roof support		
	(VOP-xxyy)	(VOP-CAxx)	(VOP-RSxx)		
Tee w/ Tee Cap (VOP-Txx)	Stove Adapter Tee w/ Tee Cap (VOP-SATxx)	Slip Section (VOP-xxyySL)	Roof braces (VOP-RBxx)		
Roof Flashing – Flat	Roof Flashing –	Storm Collar			
(VOP-FxxF)	Pitched (VOP-Fxxvv)	(VOP-SCXX)			
Horizontal Cap	Vertical Rain Cap	Wall Pass-Thru			
(VOP-HCxx)	(VOP-VCxx)	(VOP-WPTxx)			

Note: xx = diameter; yy = length; vv = pitch

APPROVED INSTALLATIONS

Use of any parts or materials not specified in this installation manual may not provide a listed system and may void the *Vortex Pellet Vent* warranty. Do not attempt matching Vortex components or pipe sections with another manufacturer's products. Do not use damaged or modified parts.

SAFETY CONSIDERATIONS

<u>Caution:</u> The ends of the chimney sections, edges of the cap, roof flashings, tee and other components can be sharp! We strongly recommend the use of gloves during installation.

INSTALLATION EXAMPLES

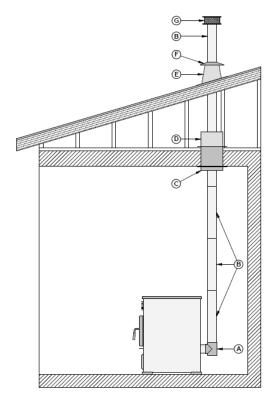


FIG. 1 Ceiling Supported Installation

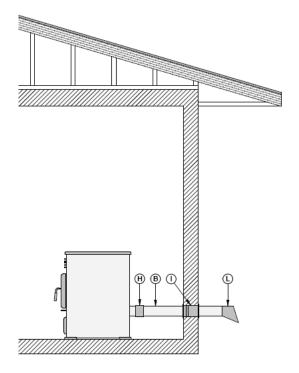


FIG. 3.1 Horizontal Installation

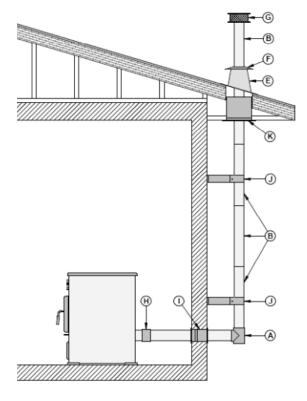


FIG. 2 Exterior Vertical Installation

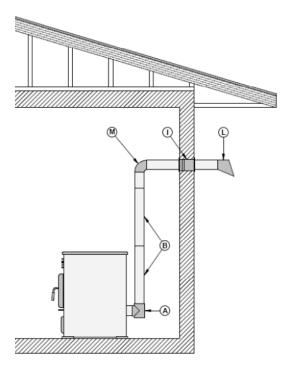


FIG. 3.2 Horizontal Installation

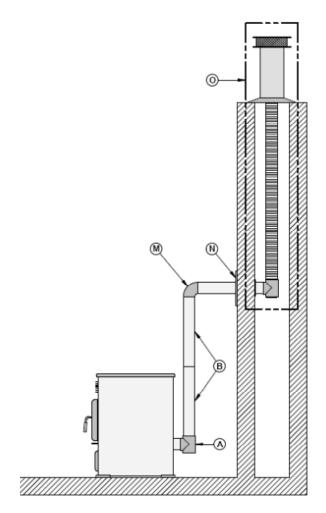


FIG. 4
Installation through a Masonry Chimney

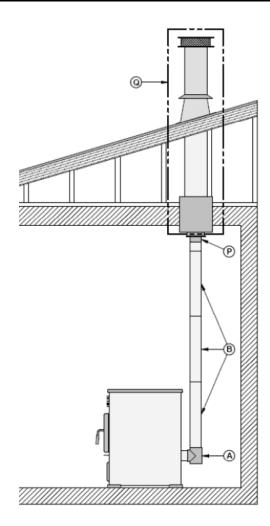


FIG. 5 Installation to Existing 2100 Factory-Built Chimney

CEILING SUPPORTED INSTALLATION (SEE FIGURE #1)

Step 1- Position appliance: Locate the appliance in accordance with the appliance manufacturer's instructions and clearance/ventilation specifications. Pay particular attention to the outlet flue collar of the appliance and endeavor to position it between the rafters and joists above.

Step 2- Frame ceiling opening: Use a plumb bob from the ceiling to the center of the appliance outlet flue collar and mark this point on the ceiling above. (Refer to table 1 regarding rough framing dimensions for each pellet vent pipe diameter). Mark the ceiling for proper rough opening and cut a hole for the appropriate ceiling support. Frame rough opening.

TABLE #1 Rough Openings			
PIPE SIZE OPENING			
3" PIPE	6-1/2" X 6-1/2"		
4" PIPE	7-1/2" X 7-1/2"		

Step 3- Ceiling Support Installation: Level the ceiling support (C) into the rough opening and secure to the framing using a minimum of three 8-penny nails or (3) #8 x 1 ½" wood screws per side. Secure the trim collar using screws supplied with the collar. The ceiling support must extend 3 inches below the ceiling into the room. In most cases, the Support will extend above the roof opening. You can trim the Support to be flush with the roof or slit the corners of the Square Support, fold them down flat against the roof then nail the flaps with one inch roofing nails.

Step 4- Firestops and Attic Insulation Shields: It is significant to note that a firestop (K) is required whenever the pellet vent pipe penetrates a floor or ceiling. To install the Firestop cut a hole in the floor/ceiling and install the Firestop from above or below the joist. Fasten the Firestop with (4) 8-penny nails or (4) #8 x 1-1/2" wood screws at each corner. An Attic Insulation Shield (D) is required any time the vent is passing through an insulated attic. An Attic Insulation Shield is installed in the same manner as a Firestop but only from the top. A stainless steel collar is included with each Attic Insulation Shield and must be installed around the pipe just above the Attic Insulation Shield. This collar will prevent insulation from coming into contact with the pellet vent pipe.

Step 5- Installing the Pipe: Place the pipe clamp (which comes taped inside of the Support Box) above the top of the hole on the bottom of the Support Box. Connect the required amount of pipe sections (B) to reach the appliance at a point where the cap (G) will be at least 12 inches above the roof line. Place the assembled pipe sections down through the clamp of the support box and connect to the appliance with a Stove Adapter (H) or Stove Adapter Tee (A) by first applying high temperature sealant onto the appliance flue collar and then secure the Stove Adapter with a minimum of (3) #8 x ½" self-drilling screws. Adjust the pipe lengths until the pipe is truly vertical. Tighten the bolt on the pipe clamp. Note the overall length of assembled pellet vent pipe cannot be more than 40 feet. A vent must be enclosed at the proper clearance anytime it passes through an occupied living space above the appliance.

Step 6- Completing the Top Termination: Fasten the Roof Support on each side with four 8-penny nails or four #8 x 1-1/2" wood screws. Use the pivot adjustment on the Roof Support to ensure the pipe is centered through the roof cutout and a minimum of a 1" clearance is maintained around the pipe. Slide the Roof Flashing (E) over the chimney and place the Flashing under the upper shingles and on top of the lower shingles. Nail the Flashing to the roof along the upper edge and down each side with 1-inch roofing nails, but do not nail the lower edge. Seal the nail heads with a water proof silicone sealant. Install a Storm Collar (F) around the pipe (B) and slide it down to fit against the roof flashing. Caulk the joint between the chimney and the Storm Collar with a waterproof silicone sealant. If the vent pipe extends 5 feet or more above the roof, an extended roof brace must be used to provide lateral support. Fit the Vertical Rain Cap (G) to the top of the pipe and attach it by tightening the band clamp.

EXTERIOR VERTICAL INSTALLATION (SEE FIGURE #2)

Step 1- Position appliance: Locate the appliance in accordance with the appliance manufacturer's instructions and clearance specifications. Pay particular attention to the outlet flue collar of the appliance and endeavor to position it between the wall studs. Install a Stove Adapter or Stove Adapter Tee onto the appliance flue collar.

Step 2- Rough Frame Wall Opening: The wall opening should be centered between two wall studs. To determine the height of the opening it is helpful to preassemble the pipe and fit to the Stove Adapter/Tee. Mark the location on the wall and cut the frame opening. Refer to table 1 for rough opening dimensions.

Step 3- Wall Pass-Thru Installation: A Wall Pass-Thru (I) must be used when the pellet vent pipe passes through a combustible wall. The Wall Pass-Thru consists of three parts: The exterior fire stop section, the adjustable extension, and the interior trim plate. Install the fire stop section on the outside wall with the tube section pointing to the structure interior. It is recommended to seal the outside edges of the fire stop section with a water proof silicone caulk. Secure the fire stop section to the framing with a minimum of four 8-penny nails or four #8 x 1-1/2" wood screws. From the interior, slide the adjustable extension onto the fire stop section tube. Adjust the extension so that it will be flush with the interior trim plate once installed. Use a minimum of three self drilling screws to secure the adjustable extension to the fire stop tube. Insert the first pipe section (B) through the Wall Pass-Thru and connect its female end to the Stove Adapter (H) or Stove Adapter Tee (A) by first applying high temperature sealant onto the appliance flue collar and then secure the Stove Adapter with a minimum of (3) #8 x ½" self-drilling screws.

Step 4- Pipe Installation: Install a Tee (A) to the vent penetrating the wall. Install pipe sections (B) vertically up the wall, ensuring to maintain a minimum of a 1" clearance between the wall and the pellet vent pipe. Secure all pipe sections together by tightening the band clamp on the outer female pipe. A Wall Support (J) must be installed just above the tee and at least every 8 feet thereafter. If the pipe is to be run through a roof overhang then a Flashing (E), Storm Collar (F) and Vertical Rain Cap (G) must be used. The Vertical Rain Cap must be installed at a minimum of 24 inches above the roof or as per stove manufacturer's instructions.

HORIZONTAL INSTALLATION (SEE FIGURES #3.1 & 3.2)

- **Step 1-** Position appliance: Locate the appliance in accordance with the appliance manufacturer's instructions and clearance specifications. Pay particular attention to the outlet flue collar of the appliance and endeavor to position it between the wall studs. Install a Stove Adapter (H) or Stove Adapter Tee (A) by first applying high temperature sealant onto the appliance flue collar and then secure the Stove Adapter with a minimum of (3) #8 x ½" self-drilling screws
- **Step 2-** Rough Frame Wall Opening: The wall opening should be centered between two wall studs. To determine the height of the opening it is helpful to preassemble the pipe and fit to the Stove Adapter/Tee. Mark the location on the wall. Cut and frame the opening. Refer to table 1 for rough opening dimensions.
- **Step 3-** Wall Pass-Thru Installation: A Wall Pass-Thru (I) must be used when the pellet vent pipe passes through a combustible wall. The Wall Pass-Thru consists of three parts: The exterior fire stop section, the adjustable extension, and the interior trim plate. Install the fire stop section on the outside wall with the tube section pointing to the structure interior. It is recommended to seal the outside edges of the fire stop section with a water proof silicone caulk. Secure the fire stop section to the framing with a minimum of four to 8-penny nails or four #8 x 1-1/2" wood screws. From the interior, slide the adjustable extension onto the fire stop section tube. Adjust the extension so that it will be flush with the interior trim plate once installed. Use a minimum of three self drilling screws to secure the adjustable extension to the fire stop tube.
- **Step 4-** Pipe Installation: Insert the first pipe section (B) through the Wall Pass-Thru (I) and connect its female end to the Stove Adapter (H) with a minimum of (3) #8 x ½" self-drilling screws. Attach sufficient pipe to extend 6" beyond the exterior wall. All pipe sections must be secured by tightening the band clamp located on the female end of the outer pipe.
- **Step 5-** Install Cap: Follow the above listed NFPA 211 (USA) or CSA B365 (Canada) rules for distance of exit terminal from windows and openings (see **General Specifications section**). Attach a Horizontal Cap (L) by tightening the band clamp around the last section of pipe. The cap must be at least 6" from the wall.

INSTALLATION THROUGH A MASONRY CHIMNEY (SEE FIGURE 4)

- **Step 1-** Position appliance: Locate the appliance in accordance with the appliance manufacturer's instructions and clearance specifications. Mark the center of the hole where the pipe is to penetrate the masonry chimney.
- **Step 2-** Prepare the wall opening: If the masonry chimney has an existing 6" terra cotta thimble, please skip to step #3. It will be necessary to break out the masonry around the location of the pipe center line mark to a diameter 6 inches.
- **Step 3-** Attach the Masonry Adapter: Attach the interior side of the Masonry Adapter (N) to the take-off on the existing liner components (O). Place the take-off through the hole in the masonry chimney and attach the clamping band from the take-off around the body of the pre-installed tee/flexible liner system. The Masonry Adapter should now be flush with the exterior side of the chimney.
- **Step 4-** Pipe Installation: Install a Stove Adapter (H) or Stove Adapter Tee (A) by first applying high temperature sealant onto the appliance flue collar and then secure the Stove Adapter with a minimum of (3) #8 x ½" self-drilling screws. Connect sections of pipe (B) together using the band clamp located on the female side of the outer pipe. A 90 degree elbow (M) will be utilized to turn the pipe into the horizontal position. An adjustable slip section pipe can now be used to connect from the elbow to the Masonry Adapter (N).

INSTALLATION TO AN EXISTING 2100 FACTORY BUILT CHIMNEY (SEE FIGURE 5)

This type of installation is for connecting Vortex Pellet Vent Pipe to an existing ceiling supported 2100 insulated chimney.

- **Step 1-** Inspection: Remove any existing connector pipe from the appliance to the Universal Adapter that is already installed in the Support Box. Visually inspect the interior of the existing 2100 insulated chimney components (Q) for cleanliness and structural integrity. All creosote must be removed from the existing chimney prior to connecting the pellet vent pipe.
- **Step 2-** Install Adapter: Install the appropriate sized 2100 insulated chimney Adapter (P) (5", 6", 7", or 8"). The Chimney Adapter will be connected to the Universal Adapter by a minimum of three #8 x ½" self-drilling screws.
- **Step 3-** Pipe Installation: Install Stove Adapter (H) or Stove Adapter Tee (A) by first applying high temperature sealant onto the appliance flue collar and then secure the Stove Adapter with a minimum of (3) #8 x ½" self-drilling screws. Connect sections of pipe (B) together using the band clamp located on the female side of the outer pipe. An Adjustable Length Pipe (Slip Section) can now be used to connect from the last standard pipe to the Universal adapter.

MAINTENANCE INSTRUCTIONS

This pellet vent system must be installed and serviced by a qualified chimney or venting professional. The criteria for the inspection and maintenance must be in conformance with local or state building codes, whichever has jurisdiction. It is recommended you use an inspection form and make notes that you can review with the homeowner.

Maintenance Procedures

Schedule – It is important that this venting system is checked and cleaned annually or as per stove manufacturer's instructions. This is for the safety of the homeowner and is necessary to meet the warranty requirements of Vortex Pellet Vent Pipe. During the heating season the venting system should be inspected for build-up at least once every two months. If a build-up has accumulated, it should be removed immediately to reduce the risk of a chimney fire.

Cleaning – It is recommended to clean thoroughly the pellet venting system after every heating season. During summer, the air is damper and with minimal air circulation within the venting system, it can mix with creosote and/or sooth deposits in pipes to form an acid that could accelerate the corrosion process and induce premature decay of the steel. Have your pellet venting system cleaned by a professional chimney sweep. Use a plastic brush.

To clean the venting system it is recommended to perform the following:

- 1. Remove the Cap by loosening the band clamp.
- 2. Select the proper sized plastic chimney brush to clean the chimney.
- 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 by loosening the clamp band. Spark arrestors and other screens may be necessary or required in some areas, but may be susceptible to blockage from fly ash or through freezing moisture in areas of low ambient temperature.
- 5. Reinstall the Chimney Cap.
- 6. Before the initial firing of the appliance, check the appliance's operating instructions for initial firing precautions.

VORTEX LIMITED LIFETIME WARRANTY PELLET VENT

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 pellet vent pipe components in a residential installation. This warranty is void if the pellet vent pipe is used in a different application than what it is designed for. This warranty is also the sole and exclusive remedy, offered in lieu of all other warranties, expressed or implied.

Warranty conditions:

The warranty of the pellet vent system 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 pellet heating appliance (stove, insert or furnace) that has been certified by an accredited laboratory;
- 5) The pellet vent pipe is designed to operate at a maximum continuous temperature of 260 degrees Celsius (500 degrees Fahrenheit) or less;
- 6) The pellet vent 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 venting system 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 years ¹	100% (100% of the purchase price at the time of the replacement)	n/a
11 to 15 years ¹	50% (a 50% rebate applies to the purchase price at the time of the replacement)	n/a
16+ years ¹	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) Any non-stainless or not galvanized components mounted or connected to the chimney or venting system;
- 5) Damage (to products, appliances or structure) caused by misuse, abuse, improper installation, lack of maintenance, improper inspection or any other negligence;
- 6) 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;
- 7) Use of improper chimney cleaners or any improper solvents/chemicals will void all applicable warranties;
- 8) Does not cover any solid fuel other than wood pellets, except upon the express, written approval from the manufacturer for other pellet fuel.

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.

Distributed by:

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