

## Installation Instructions



### Combustion Air System

Combustion Air System (CAS) brings in outside air for wood-burning appliances. Used with the DuraTech chimney system.

# DURATECH

**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 COMBUSTION AIR SYSTEM BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS AND THE INSTRUCTIONS OF THE RELATED CHIMNEY SYSTEMS.**

**NOTE:**

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.

**Dear Customer, Installer, or End User:**

We welcome any comments regarding matters pertaining to our DuraVent products.

We welcome any ideas, input or complaints and I'll make sure that someone responds directly back to you.

Send your emails to:  
[president@duravent.com](mailto:president@duravent.com)

If you are searching for tech support or product information, please phone us at 800-835-4429.

Or email us at:  
[techsupport@duravent.com](mailto:techsupport@duravent.com)



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The Combustion Air System (CAS) is a system designed to bring in outside combustion air directly into your wood-burning stove or appliance, while still venting the exhaust gases safely into a listed chimney. The CAS system is available for the DuraVent DuraTech chimney system.

## CLEARANCES

Always follow the required clearance to combustibles for the vent or chimney system you are installing. DuraTech chimney pipe requires a minimum of 2" clearance to any combustible. Never fill any required clearance space with insulation or any other materials. Combustible materials include, but are not limited to, lumber, plywood, sheetrock, plaster and lath, furniture, curtains, electrical wiring, and building insulation. The CAS Triple-Wall Stovepipe must have 6" clearance from walls and combustibles (running vertically) and 8" clearance from ceilings and combustibles (running horizontally).

## PERMITS

Contact your local Building Official or Fire Official regarding permits, restrictions, and installation inspections in your area.

## EQUIPMENT & MATERIALS

Drill / Driver  
Hammer  
Caulking Gun  
Plumb Bob  
Screwdrivers (Phillips & Standard)  
Tin Snips  
Saber or Keyhole Saw  
Level  
Dependable Ladder  
Tape Measure  
Proper Gloves and Shoes  
Eye Protection

## Materials You May Need:

Non-hardening Waterproof Sealant  
8-Penny Nails, 600°F RTV Silicone Sealant  
Roofing Nails  
#8, 2-1/2" & 1-1/2" Wood Screws

## INSTALLATION NOTES

Proper planning for your Combustion Air System installation will result in greater safety, efficiency, and convenience, as well as saving time and money. You must use only authorized DuraVent CAS parts and related chimney components to maintain a safe, approved system. Do not mix parts or try to match with other products or use improvised solutions. Do not install damaged or modified parts. Practice good workmanship. Sloppy work could jeopardize your chimney's safety. Keep electrical wiring and building insulation away from all chimneys. When deciding the location of your installation, try to avoid modifications to roof beams and other structural components of the building. If you have any questions, contact either your dealer or DuraVent directly.

## APPLIANCE RECOMMENDATIONS

Always follow the stove manufacturer's installation instructions.

**Installation:** Install your stove or appliance as described by the appliance manufacturer. Be sure to maintain all required clearances.

**Fues:** Connect only one appliance per chimney.

**Operation:** Follow the appliance safety manual for maximum efficiency and safety. Do not over fire the appliance. Any damage to the appliance or chimney can possibly void your warranties and cause a fire hazard.

**Fuels:** Only burn approved fuels as specified by your appliance manufacturer's instructions. Do not burn driftwood, plastic, or chemically treated wood such as railroad ties. They are corrosive to your chimney system.

## DURATECH CHIMNEY CAS INSTALLATION

The DuraVent Combustion Air System (CAS) can be used with both vertical (through-the-ceiling) and horizontal (through-the-wall) DuraTech chimney installations. The CAS system is designed to be used with stoves that have a specific air-inlet on the back of the stove. Verify the stove you are using has an air-inlet to which the CAS system can be attached.

## GENERAL INSTALLATION REQUIREMENTS

These CAS installation instructions are intended to be used with the full installation instructions for DuraTech. Except as described in these installation instructions, always follow the DuraTech installation instructions for a safe installation. These CAS installation instructions describe how to connect the CAS system to the DuraTech chimney system, and how to connect the CAS system to the stove. In order for the CAS system to be function properly, the system needs access to outside air. The outside air is intended to come through the ventilated attic space or flashing (through-the-ceiling installations, **Fig 1 & 2**) or through the chase (through-the-wall installations, **Fig 3**).

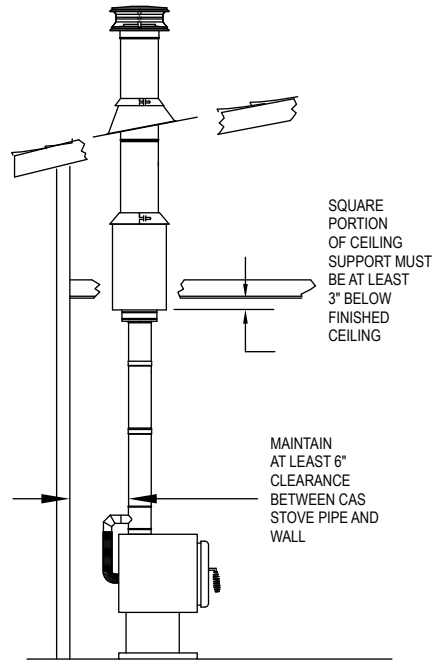


Figure 1

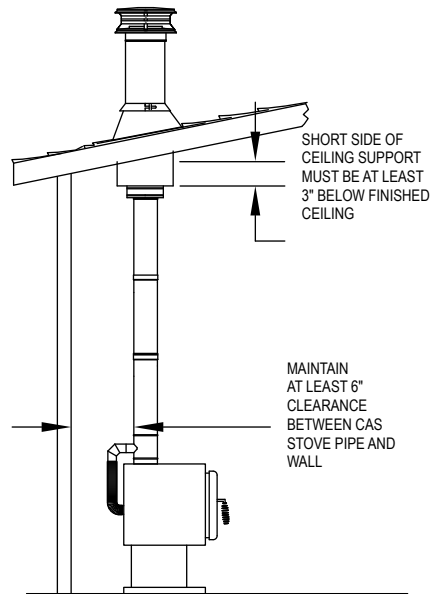
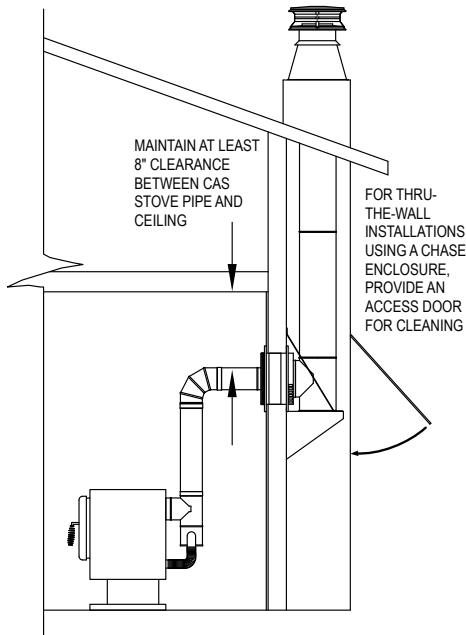


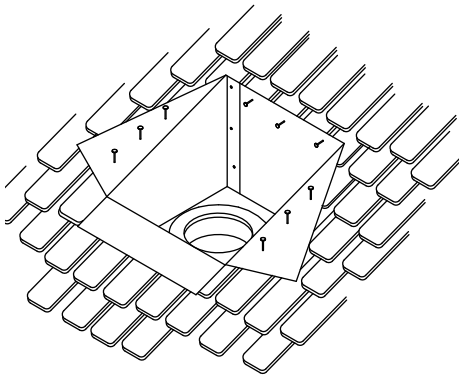
Figure 2

Framing Dimensions		
COMPONENT	6" DIAMETER	8" DIAMETER
DURATECH		
CAS CEILING SUPPORT	12-1/4"	14-1/2"
CAS WALL THIMBLE	12-1/4"	14-1/4"

Table 1



**Figure 3**



CUT AND FOLD SIDES OF CEILING SUPPORT TO BE FLUSH WITH ROOF. SECURE WITH NAILS OR SCREWS AS DESCRIBED.

**Figure 4**

## THROUGH-THE-CEILING INSTALLATIONS

**Step 1.** Determine the location of the CAS Ceiling Support. The CAS Ceiling Support is installed instead of a standard Support Box. The CAS Ceiling Support can support up to 50-ft of DuraTech chimney or up to 70-ft of chimney when the optional support straps are used. The CAS Ceiling Support should be located directly above the stove if possible to facilitate the installation of the CAS Connector Pipe. If possible, use a plumb bob to ensure the center of the Ceiling Support will be directly over the stove's outlet. If the CAS Ceiling Support is not aligned with the stove outlet, elbows will be required for the offset.

**Step 2.** Install CAS Ceiling Support. Cut and frame an opening for the CAS Ceiling Support. Refer to **Table 1** for proper framing dimensions. Install the CAS Ceiling Support into the framed opening, and ensure the Ceiling Support is level. The square portion of the Ceiling Support must be a minimum of 2" below the finished ceiling (**Fig 1, 2**). Secure the Ceiling Support with at least (2) 1-1/2" wood screws per side; minimum of (8) wood screws total.

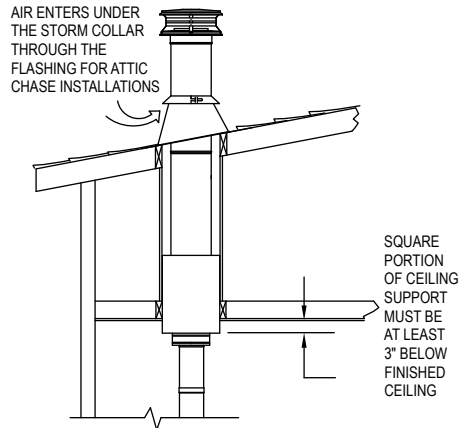
For most installations, the CAS Ceiling Support can be left at full height (does not need to be cut down), and it can act as an insulation shield for the attic space. If the CAS Ceiling Support is being installed into a cathedral ceiling, the box can often be installed connected directly to the roof rafters, and then folded over and nailed down or trimmed to be flush with the roof (**Fig 4**).

Alternatively, the CAS Ceiling Support can be installed in a chase enclosure that is placed directly against the outside of the Ceiling Support and extends up to

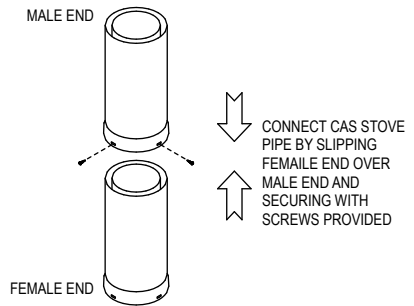
the underside of the roof. In this type of installation, the combustion air is drawn in through the flashing, underneath the Storm Collar (**Fig 5**).

**Step 3.** Install CAS Connector Pipe. After the CAS Ceiling Support is installed and the stove is located, the CAS Connector Pipe can be installed. If the stove is a top-exit stove, then the female end (with pre-punched holes) of the CAS Adapter goes directly onto the stove's outlet collar, with the air intake branch of the Adapter facing to the back of the stove (**Fig 6**). Secure the female end of the Adapter to the stove's collar with (3) 1-1/4" screws provided. Pre-drill the stove's collar for the screws, as needed. The CAS Triple-Wall Stovepipe must have 6" clearance from walls and combustibles (running vertically) and 8" clearance from ceilings and combustibles (running horizontally).

If the stove has a rear outlet, a CAS Tee is required with the branch connecting directly to the stove's outlet. Secure the CAS Tee to the stove outlet with the (3) 1-1/4" screws provided. Pre-drill holes in the stove outlet, as needed. The CAS Adapter can be installed immediately above or below the CAS Tee (**Fig 6**) with screws provided. If installed below the Tee, remove the Tee Cap from the Tee and reattach the Tee Cap to the bottom

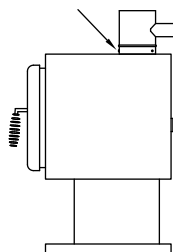


**Figure 5**



**Figure 7**

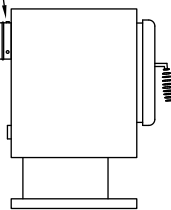
SECURE CAS ADAPTER TO STOVE WITH SCREWS PROVIDED. BRANCH SHOULD FACE TOWARDS BACK OF STOVE.



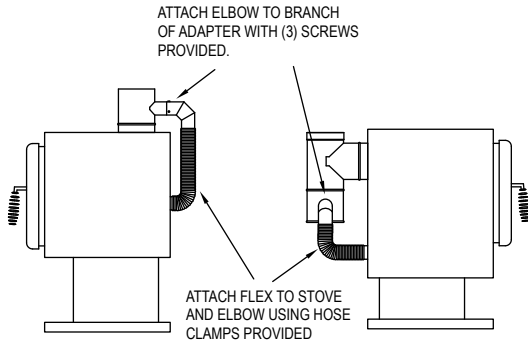
CAS ADAPTER CAN BE INSTALLED ABOVE OR BELOW TEE, BUT SHOULD BE CLOSE TO AIR INLET OF STOVE

SECURE CAS TEE TO BACK OF STOVE WITH SCREWS PROVIDED.

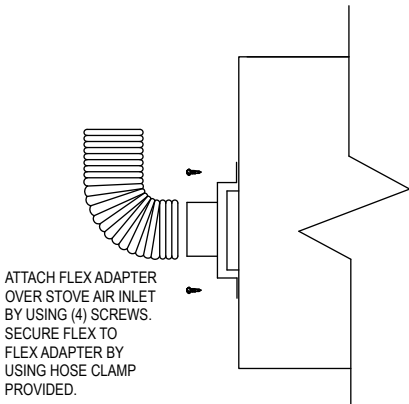
ATTACH TEE CAP TO BOTTOM OF TEE OR ADAPTER



**Figure 6**



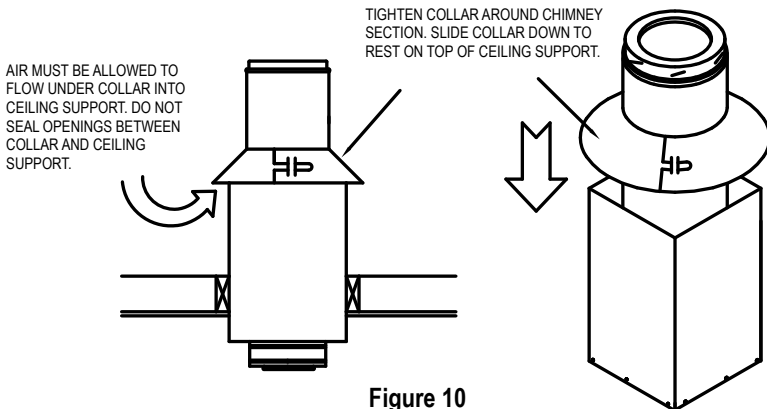
**Figure 8**



**Figure 9**

of the Adapter. Additional lengths of CAS Connector pipe can then be installed using the screws provided to secure the pipe lengths (male end up, female end down) (*Fig 7*). A Telescoping Length will likely be needed. The final CAS Connector Pipe section is installed into the bottom of the CAS Ceiling Support and secured using (3) 3/8" screws provided.

CAS Telescoping Lengths are available to provide adjustment in the connector pipe. The CAS Telescoping Length are available in 14"-24", 29"-46", or 40"-68" sizes. Once the adjustable length is at the



**Figure 10**



desired length, secure the two halves with (3) 3/8" screws provided. If an offset in the connector pipe is needed, CAS 45-degree and 90-degree elbows are available. Elbows cannot be combined to create a bend more than 90-degrees.

**Step 4.** Attach Elbow Section to Adapter. The Elbow Section to connected to the branch of the Adapter to facilitate the airflow to the appliance (**Fig 8**). Slide the Elbow Section onto the Adapter and secure with (3) 3/8" screws provided. Connect one end of the flex to the Elbow Section by sliding a supplied hose clamp onto the Elbow section, and then slide the flex over the end of the Elbow Section. Secure the flex in place by tightening the hose clamp.

**Step 5.** Connect to air-inlet of the stove. Connect the other end of the flex to the air-inlet of the stove. If the flex slides over the stove inlet, then attach using a hose clamp provided (**Fig 8**). If the stove's air-inlet is of a different size, then a Flex Adapter is needed (**Fig 9**). The Flex Adapter will attach directly to the stove over the top of the air inlet, using (4) 3/8" screws provided. The flex will then slide over the Flex Adapter and is secured with a hose clamp. A Reducer Flex Adapter is also available for stoves with a 2" diameter air inlet. One end of the Reducer Flex Adapter slides into the flex and is secured with a hose clamp, the other end slides into the stove inlet and is secured with (3) 3/8" screws. As an option, a non-hardening sealant can be used to seal the connection between the stove and the Flex Adapter but choose a sealant that can handle the temperature of the stove.

**Step 6.** Install the first DuraTech Chimney Pipe section into the Ceiling Support. Install

chimney sections into the CAS Ceiling Support as normally directed in the full DuraTech Installation Instructions. You should install enough chimney to reach at least a few inches above the CAS Ceiling Support. The remainder of the chimney pipe will be installed later.

**Step 7.** Install Collar above CAS Ceiling Support. At the top of the CAS Ceiling Support, install the Collar around the first chimney section. The Collar prevents debris from falling into the Ceiling Support, while also allowing intake air to enter the CAS system. The Collar should rest on top of the Ceiling Support (**Fig 10**). The air enters into the Ceiling Support underneath the Collar. Important: Do not seal the openings between the Collar and the Ceiling Support; this is how the stove gets its air for combustion with the CAS system.

**Note:** In order for the CAS system to work, the attic space must have direct access to outside air (through gable vents, soffit vents, ventilated flashing, etc.). Combustion air for the appliance comes into attic through attic vents or through chimney flashing, and continues through the CAS system to the stove.

**Step 8.** Continue to install remainder of the chimney system according to the complete DuraTech installation instructions; L150 DuraTech Installation Instructions.

## THROUGH-THE-WALL INSTALLATIONS

**Step 1.** Determine location for CAS Wall Thimble. The CAS Wall Thimble should be located near the stove to keep the connector pipe to a reasonable length.

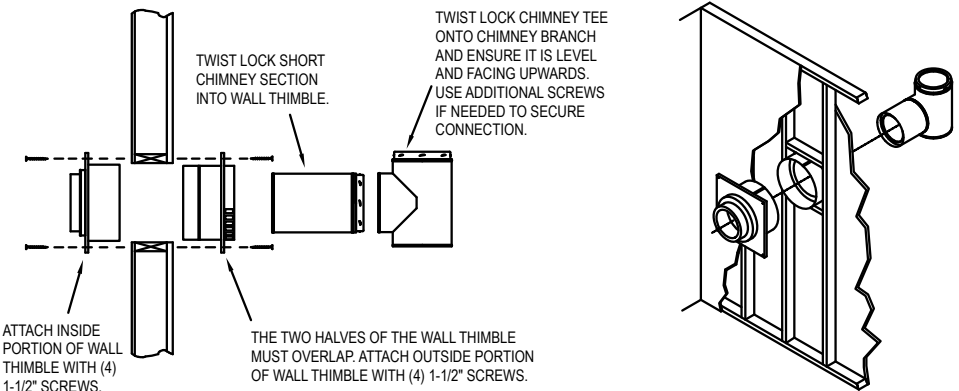
**Step 2.** Install CAS Wall Thimble. Cut and frame an opening in the wall for the CAS Wall Thimble. Refer to **Table 1** for framing dimensions. Install the black-painted inside portion of the CAS Wall Thimble into the framed opening. Secure the CAS Wall Thimble with (4) 1-1/2" wood screws through the holes on the face of the Thimble. Install the outside portion of the CAS Wall Thimble by sliding the radiation tube into the tube of the inside portion of the Wall Thimble (**Fig 11**). Important: the Wall Thimble must have a continuous tube through the wall for a safe installation. The CAS Wall Thimble can accommodate walls up to 12" thick. If the wall is too thick for the two halves of the CAS Wall Thimble to reach each other, a field-fabricated tube of 26-gauge galvanized steel (or better) must be made to bridge the gap between the two halves. Slide

the field-fabricated tube over the inner portion of the Wall Thimble and then slide the outer portion of the Wall Thimble into the field-fabricated tube to complete the continuous tube through the wall. Make sure the air-inlet openings of the Wall Thimble's outside portion are facing downward. Secure the outside portion of the Wall Thimble to the wall with (4) 2-1/2" wood screws. Seal the perimeter of the CAS Wall Thimble where it meets the wall with a non-hardening sealant to provide a weather-resistant seal.

**Step 3.** Connect CAS Connector Pipe. Refer to Step 3 of the Vertical Installation. Use 45- or 90-degree elbows as needed.

**Step 4.** Connect to air inlet of stove. Refer to Step 4 of the Vertical Installation.

**Step 5.** Install the chimney branch through the wall. A horizontal section of chimney is needed to go through the wall and twist lock into the CAS Wall Thimble. Depending on your wall thickness, use a section of chimney that will reach from the Wall Thimble to the outside. Connect the chimney Tee to the horizontal chimney section (**Fig 11**). Support the chimney



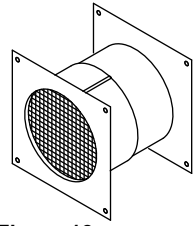
**Figure 11**

Tee with the Tee Support as detailed in the full DuraTech installation instructions. Continue to install the remainder of the chimney system as described in those installation instructions.

**Step 6.** Ensure CAS system has access to outside air. The CAS system needs to have access to outside air for the stove to use. If the chimney is unenclosed on the outside of the home, no steps are needed to provide air. The outside portion of the CAS Wall Thimble has air-inlet openings to provide air to the stove. However, if the chimney is enclosed in a chase, the chase needs to have ventilation to supply air for the CAS system. This opening can be provided by the Chase Air Intake with Rodent Guard (**Fig 12**) or by a small opening in the chase that provides a minimum of 12 square inches of free area (opening can be louvered or covered with mesh screen).

**Step 7.** Continue to install remainder of the chimney system according to the complete DuraTech installation instructions; L150 DuraTech Installation Instructions.

CHASE AIR INTAKE  
WITH RODENT GUARD  
PROVIDES A 6"  
DIAMETER OPENING  
FOR VENTILATION INTO  
CHASE.



**Figure 12**

## M&G DURAVENT WARRANTY

M&G DuraVent, Inc. ("DuraVent") provides this limited lifetime warranty for all of its products to the original purchaser, with the exception of Ventinox (lifetime), DuraBlack (five years) and all Termination Caps (five years). Subject to the limitations set forth below, DuraVent warrants that its products will be free from substantial defects in material or manufacturing, if properly installed, maintained and used. This Warranty is non-transferable with the exception of Ventinox which is transferable from the original homeowner to the buyer of the home for a period of ten (10) years. This warranty does not cover normal wear and tear, smoke damage or damage caused by chimney fires, acts of God, or any product that was: (1) purchased other than from an authorized DuraVent dealer, retailer or distributor; (2) modified or altered; (3) improperly serviced, inspected or cleaned; or (4) subject to negligence or any use not in accordance with the printed materials provided with the product as determined by DuraVent. This limited lifetime warranty applies only to parts manufactured by DuraVent.

DuraVent provides the following warranties for its products: One Hundred Percent (100%) of the purchase price or MSRP at time of purchase, whichever is lower, for 15 years from the date of purchase, and Fifty Percent (50%) thereafter, except for the following limitations: Ventinox liner and components in wood, oil, wood pellet, and gas installations are warranted at One Hundred Percent (100%) for the lifetime of the original homeowner; Ventinox 316 liner and components for coal burning installations which are warranted One Hundred Percent (100%) for ten years; all Termination Caps and DuraBlack® are warranted at One Hundred Percent (100%) for five years, and at Ten Percent (10%) thereafter.

All warranty obligations of DuraVent shall be limited to repair or replacement of the defective product pursuant to the terms and conditions applicable to each product line. These remedies shall constitute DuraVent's sole obligation and sole remedy under this limited warranty. This warranty provides no cash surrender value. The terms and conditions of this limited lifetime warranty may not be modified, altered or waived by any action, inaction or representation, whether oral or in writing, except upon the express, written authority of an executive officer of DuraVent.

### VENTINOX WARRANTY CONDITIONS

Liner and Component warranties contained herein are subject to the following conditions: (1) The Liner and Components must be installed according to DV's installation instructions; (2) The Liner and Components are used only to line or reline chimneys venting residential appliances for which the liner was intended; and (3) documented annual inspection of the Liner and Components and maintenance as deemed necessary, beginning one year after the date of installation and continuing throughout the warranty period, by a Nationally Certified Chimney Sweep or VENTINOX® installer. The Liner and Components warranty is further subject to compliance with the following requirements throughout the warranty period: The chimney must have a chimney cap and chemical chimney cleaners must not be used when cleaning the Liner or Components. Plastic-bristle flue cleaning brushes are recommended. Com, biofuels, driftwood or other wood containing salt, preservative-treated lumber, plastic and household trash or garbage, or wood pellets containing such materials must not be burned in the appliance or fireplace. In case of a chimney fire, the chimney must be inspected and approved by a certified Chimney Sweep before reuse. After each annual inspection, maintenance, and cleaning, the certified Chimney Sweep must fill out and date the appropriate section of the warranty card provided with the chimney liner.

### LIMITATIONS ON INTERNET SALES:

Notwithstanding any other terms or conditions of this limited lifetime warranty, DuraVent provides no warranty for the following specific products if such products are both: (a) purchased from an Internet seller; and (b) not installed by a qualified professional installer: DuraTech®, DuraPlus HTC®, PelletVent Pro®, FasnSeal®, and DuraVent's relining products including DuraLiner®, DuraFlex® 304, DuraFlex® 316, DuraFlex® Pro, DuraFlex® SW, and Ventinox®. For purposes of this warranty, a trained professional installer is defined as one of the following: licensed contractors with prior chimney installation experience, CSIA Certified Chimney Sweeps, NFI Certified Specialists, or WETT Certified Professionals.

DuraVent reserves the right to inspect defective product to determine if it qualifies for replacement under the terms of this limited lifetime warranty. All warranty claims must be submitted with proof of purchase. Labor and installation costs are not covered under this warranty. To obtain warranty service contact DuraVent promptly at DuraVent Warranty Service, 902 Aldridge Rd., Vacaville CA 95688, or call 800-835-4429.

WHERE LAWFUL, DuraVent DISCLAIMS ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL DuraVent BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES OR DIRECT OR INDIRECT LOSS OF ANY KIND, INCLUDING BUT NOT LIMITED TO PROPERTY DAMAGE AND PERSONAL INJURY. DuraVent's ENTIRE LIABILITY IS LIMITED TO THE PURCHASE PRICE OF THIS PRODUCT. SOME STATES DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.

For the most up-to-date installation instructions, see [www.duravent.com](http://www.duravent.com)  
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# DuraVent

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