

Installation Instructions



FasNSeal Flex
DuraFlex SW
Ventinox

Ovalizing Flexible Liners

DuraVent®

A MAJOR CAUSE OF VENT RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF THE UTMOST IMPORTANCE TO INSTALL ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

IMPORTANT:

Read through all of these instructions before beginning your installation. Failure to install this product as described in these instructions will void the manufacturer's warranty, may create a fire or other safety hazard, and may affect your homeowner's insurance and safety listing of your appliance.

Keep these instructions for future reference.

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

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

Or email us at:
techsupport@duravent.com



LISTED
MH45609

OVALIZING FLEXIBLE LINERS

For the most up-to-date installation instructions, see www.duravent.com

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Ovalizing Flexible Liners

APPLICATION

DuraVent's FasNSeal® Flex is a single strip double layer super-ferritic stainless steel for use with natural gas or propane Categories II, III, and IV appliances or Canada's Type BH Gas Vent Systems, having a maximum rated operating temperature of 480°F and a maximum positive pressure of 6" water column. FasNSeal Flex is the only flexible chimney liner listed to UL 1738 standard. DuraFlex® SW is a single, smooth wall flexible relining system for masonry chimney. Use with gas, wood pellet, oil or wood appliances. Applications include: fireplace inserts, furnaces, boilers and water heaters. DuraFlex SW is listed to UL 1777 and ULC S635. Ventinox® is a single-wall flexible liner used for upgrading or restoring masonry chimneys that vent Category I natural gas, propane or oil appliances, wood or pellet stoves, fireplaces and fireplace insert.

CLEARANCES

DuraFlex SW flexible lining system is listed at 0" clearance for gas, oil, and pellet applications. 1" clearance to masonry for wood-burning applications. Insulation is required for 0" clearance to masonry for wood-burning. Ventinox VFT single-wall flexible lining system is listed at 0" clearance to masonry chimney for oil and gas. With Thermix or ProFoil insulation 0" clearance for solid fuels. Ventinox VG single-wall flexible lining system is listed at 0" clearance to masonry for gas appliances. Check with your appliance manufacturer to see if larger clearances are required. Do not fill any air space clearances with insulation.

PERMITS

Before installation, check with your local Building Official, Fire Official, or other authority having jurisdiction regarding permits, restrictions, and installation inspections in your area.

EQUIPMENT AND MATERIALS

90° Angle Grinder
Circle cutting Guide
Up-Cut Mill Bit
Ovalizing Machine
Tape Measure
Proper Gloves and Shoes
Eye Protection

GENERAL INSTALLATION NOTES

Read through these installation instructions before beginning your installation. A properly listed installation is dependent upon installing the vent in full compliance with these installation instructions. Proper planning for your flexible lining installation will result in greater safety, efficiency, and convenience, as well as saving time and money. You must use only authorized DuraVent vent parts, or other parts specifically authorized in these instructions and listed by the appliance manufacturer in order 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 vent's safety. Keep electrical wiring and building insulation away from all chimneys and vents. When deciding the location of your installation, try to avoid modifications to structural components of the building. If you have any questions, contact either your dealer or DuraVent directly.

Refer to the appliance manufacturer for the maximum and minimum allowed vent runs for your specific appliance model, including maximum number elbows allowed in the system, and for the pressure drops and equivalent length of the fittings. The total vent length from the appliance to the termination shall not be greater than what is specified by the appliance manufacturer.

WARNING

When the outside diameter of any thing walled liner is reduced beyond a certain point, it tends to develop "crinkles" on the major OD. The same is true when ovalizing FasNSeal Flex and DuraFlex SW, it only looks different: the inner layer may begin to "pucker". See *Figure 1*. While this does not reduce the structural stability of the liner, you should be aware of this possibility.

CAUTION

Wear gloves and eye protection when handling/cutting any liners.

CUTTING AND OVALIZING FASNSEAL FLEX AND DURAFLEX SW

Due to its smooth inner layer not being mechanically fastened on the downward side, traditional cutting methods are not usually successful. By using an Angle Grinder, a clean cut can easily be achieved.

INSTRUCTIONS

1. Set up the 90° Angle Grinder with the masonry wheel. Make a cut across the liner's corrugations, first, then follow the corrugations all the way around the liner. See *Figure 2a and 2b*

While cutting, rotate the liner away from you and with the direction of the wheel's rotation. This method produces a nice, clean cut across both layers of FasNSeal Flex and DuraFlex SW greatly increases the lifetime of the Masonry wheel.

2. Set up the Angle Grinder with an Up-Cut Mill bit and the Circle Cutting Guide. Set the guide for the desired hole diameter. See *Figure 3a and 3b*.

NOTE: The use of the Up-Cut Mill Bit is

essential, as it pulls the inner layer of steel against the corrugated layer of FasNSeal Flex, producing a clean cut across both layers.

3. Drill a 1/4" where the center of the Universal Take-off will be located in the liner.

4. Position the rubber guard of the Circle cutting guide into the 1/4" hole. See *Figure 4*

5. Turn on the Angle Grinder and begin cutting the liner in a clockwise direction. Keep the angle Grinder perpendicular to the liner at all times. You do not need to apply much pressure - let the drill bit do the cutting for you. See *Figure 5a, 5b, and 5c*

OVALIZING VENTINOX

Sizing a chimney system properly is an important decision the installer must make when bidding a job. It is often impossible to insert round liners into chimneys with rectangular shapes and still maintain the proper cross sectional area to vent the appliance and the required insulation thickness around the liner. Ventinox liners can be reshaped to feature oval or nearly rectangular cross sections. Ventinox distributors have the VOV612 Ovalizing Machine at their locations and can accomplish this task to your specifications. Before ordering "ovalized" liners, refer to **Table A**, and find the cross sectional areas created when round liners are reshaped. This is important for matching the venting requirements of an appliance.

Table A shows the cross sectional areas in square inches, when liners are ovalized from round to 4"-11" on the minor dimensions. Example: when a 9" VENTINOX liner is ovalized so that its minor dimension measures 6", the cross section area is reduced from 65 sq. in to 53 sq. in.

Table B shows the major dimensions when liners are ovalized from round to 4"-11" on the minor dimensions. Example: When a 9"

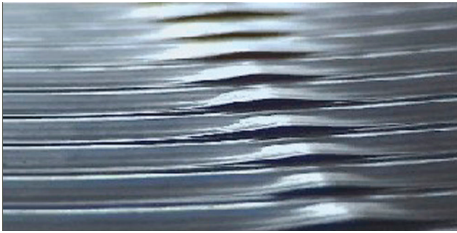


Figure 1



Figure 2a

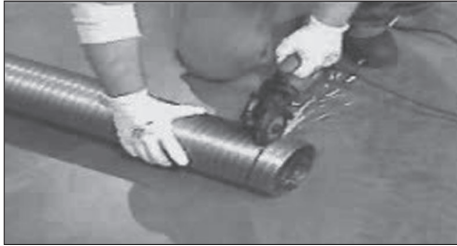


Figure 2b



Figure 3a



Figure 3b

liner is ovalized so that its minor dimension measures 6", the major dimension measures 11.8".



Figure 4

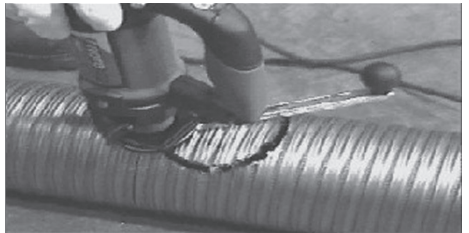


Figure 5a

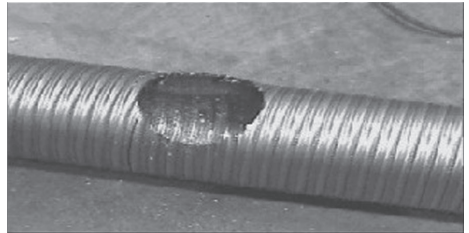


Figure 5b

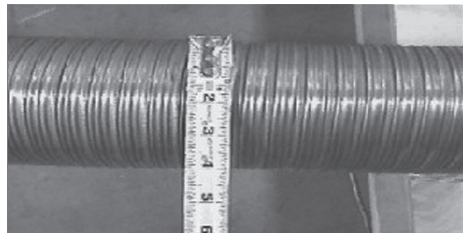


Figure 5c

**CAUTION**

These tables were developed specifically for Ventinox liners. Other lining materials behave differently when ovalized and may not assume major diameters or cross sectional areas.

Table A**Square Inches Area of Round Ventinox Liner**

VENTINOX LINER (INCHES)	MINOR DIMENSION								
	4"	5"	6"	7"	8"	9"	10"	11"	12"
5" Liner	18	20							
6" Liner	24	25	28						
7" Liner	32	34	36	38					
8" Liner	36	42	45	48	50				
9" Liner	43	50	53	56	61	64			
10" Liner	50	57	63	68	72	76	79		
11" Liner	57	65	72	78	83	87	92	95	
12" Liner	63	72	79	86	93	99	102	106	112

Table B**Diameters of Round Ventinox Liner**

VENTINOX LINER (INCHES)	MINOR DIMENSION								
	4"	5"	6"	7"	8"	9"	10"	11"	12"
5" Liner	5.7	5							
6" Liner	7.7	7.0	6						
7" Liner	9.3	8.8	8.3	7					
8" Liner	10.5	10.3	9.5	9.0	8				
9" Liner	12.5	12.0	11.8	10.8	10.0	9			
10" Liner	13.8	13.3	13.0	12.5	12.0	11.5	11		
11" Liner	15.3	14.8	14.3	13.6	12.8	12.0	11.5	11	
12" Liner	16.5	16.2	15.5	15.5	15.0	14.5	14.0	13.0	12

DURAVENT LIMITED LIFETIME WARRANTY

DuraVent, Inc. ("DuraVent") provides this limited lifetime warranty for all of its products with the exception of Ventinox® (lifetime), and PolyPro® (ten years). Subject to the limitations set forth below, DuraVent warrants that its products will be free from defects in material or manufacturing, if properly installed, maintained and used. DuraVent products are fully warranted if installed only by a professional installer. This Warranty is transferable from the original homeowner to the buyer of the home. 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 installation instructions included with the product as determined by DuraVent. Installation instructions are available online at www.duravent.com under Support/Literature and through our Customer Service Department 800-835-4429 or customerservice@duravent.com. This limited lifetime warranty applies only to parts manufactured by DuraVent.

DuraVent provides the following warranties for its products: One Hundred Percent (100%) MSRP 15 years from the date of purchase, and Fifty Percent (50%) thereafter, except for the following limitations on: all Termination Caps and DuraBlack® are warranted at One Hundred Percent (100%) for five years.

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 warranty. This warranty provides no cash surrender value. The terms and conditions of this 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.

Corn, bio-fuels, 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 not installed by a qualified professional installer: DuraTech®, DuraTech® DTC, DuraPlus HTC®, DuraTech® Premium, DuraChimney® II, PelletVent Pro®, DirectVent Pro®, FasNSeal®, FasNSeal® W2, FasNSeal® Flex, and PolyPro®, and DuraVent's relining products including DuraLiner®, DuraFlex® (SW, Pro, 316, 304), 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 must be notified and given the opportunity to inspect defective product prior to 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 Warranty Service, 877 Cotting Ct., 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

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Manufactured in Vacaville CA and Albany NY

DuraVent®

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