

Installation Instructions



High-Temperature, Factory Insulated
Double-Wall Masonry Relining system
5" Round
6", 8" Round and Oval

DURRALINER[®]

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 DURALINER BE INSTALLED 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 phone us at 800-835-4429.

Or email us at:
techsupport@duravent.com



DURALINER INSTALLATION INSTRUCTIONS

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

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DURALINER

IMPORTANT MEASUREMENTS

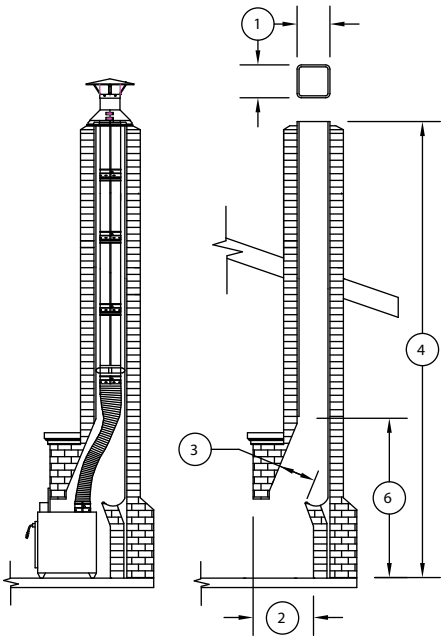


Figure 1

1. Flue size I.D.:

• _____

2. Opening of fireplace:

- height _____
- width _____
- depth _____

3. Damper opening:

- length _____
- width _____

4. Total chimney and fireplace height:

• _____

5. Total chimney height to tee opening:

• _____

6. Height to first tile:

• _____

7. Height of appliance:

• _____

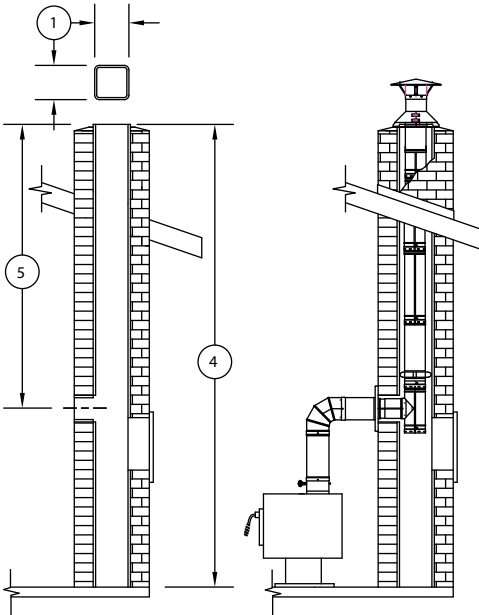
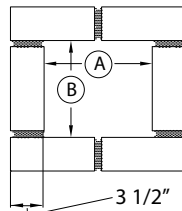


Figure 2



TYPE	A	B
6" ROUND	7"	7"
8" ROUND	9"	9"
6" OVAL	8"	5 1/2"
8" OVAL	11	5 1/2" - 6"

Figure 3

APPLICATION AND LISTING

DuraLiner is a double-wall, insulated all-fuel reliner for masonry chimneys, used for natural draft venting of gas, liquid and solid fuel appliances. DuraLiner is listed to UL 1777 and ULC S635 under listing file number MH14420, where maximum continuous flue gas outlet temperatures do not exceed 1000°F/538°C (UL 1777) or 1200°F/650°C (ULC S635). DuraLiner is approved for installation with zero clearance between the liner and masonry, plus zero clearance between the masonry and combustibles. When the Transition Anchor Plate is used, Round DuraLiner pipe can be coupled to a Duravent factory built 103HT chimney system at the end of a masonry enclosure.

GENERAL INSTALLATION INSTRUCTIONS

Follow both these and the appliance manufacturer's instructions and manual for maximum efficiency and safety. Connect only one flue liner per appliance. DO NOT mix or match with other products or improvise solutions- (You may void warranties). DO NOT modify parts.

Contact your local building official or fire department regarding permits, restrictions, and installation inspection in your area. Have a professional installer thoroughly inspect (to code requirements) and clean the existing masonry flue of tar glaze creosote before relining. The chimney should be checked for cracked, loose or missing bricks, mortar, or other materials that could inhibit correct installation of the liner system. Make necessary repairs prior to starting install.

Do not place insulation or other materials other than specified in these instructions around the liner or in required air spaces.

Determine if your setup is an open hearth (**Fig.1**) or wall breach installation (**Fig.2**). Also determine the available size of your chimney and the corresponding allowable DuraLiner size. (**Fig.3**)

- If you have an open hearth setup, verify your flue size, and the fireplace opening and depth before you purchase your appliance and reliner.
- If you have a wall breach tee installation setup, verify your flue size and chimney height from tee, before you purchase your appliance and reliner.

DuraLiner shall be sized not less than that specified in the appliance manufacturer's instructions. Vent sizing is especially important in areas with low ambient temps and low temp flue products. Determine the required size of DuraLiner and the correct Appliance Connector (follow appliance manufacturer's recommendations). There are three different types of appliances connections (**Fig.4**).

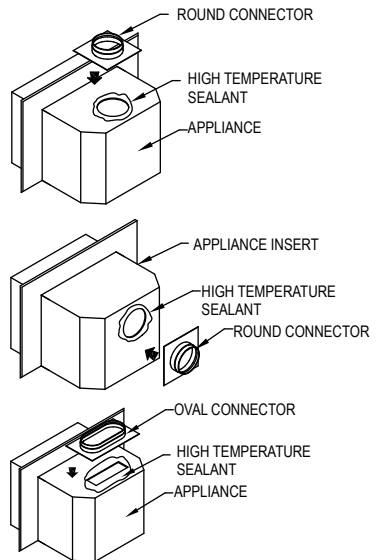


Figure 4

From the appliance up through the damper area to the first flue tile, it is not mandatory to insulate flex pipe. Above the first flue tile, flex pipe must be insulated. **NOTE: For improved draft and fire safety, we recommend ALL flex pipes be insulated (Fig.5)- (See "Installing Insulation" later in these instructions for detail).**

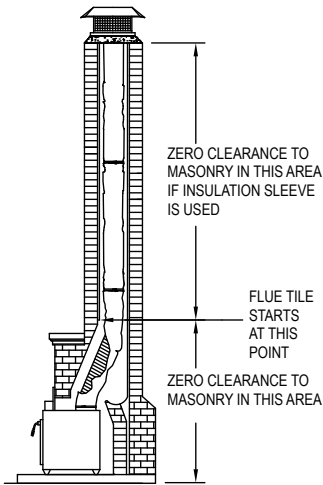


Figure 5

OPEN HEARTH INSTALL (Fig.1)

STEP ONE: Clear the flue of obstructions for Duraliner to be installed. If applicable, remove the existing damper from your fireplace (not needed) and in some cases part of the smoke shelf to allow Duraliner to pass through this area freely.

Note: Duraliner flex pipe is available in both round and oval shapes to ease installation.

STEP TWO: Prepare the top of the Masonry chimney and install the top plate assembly (Reference "Extend-A-Cap" instructions later

in this document). Note: If using an Oval pipe, this will need to be inserted prior to the plate. DuraLiner is supported from the top, and the top plate is designed to support the weight of a relining system up to 50 feet (the minimum height of the system must be at least 10-feet to ensure proper drafting performance). **(Fig.6)**

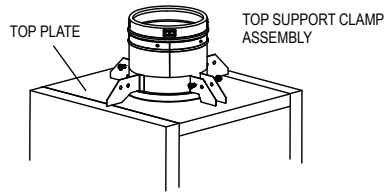


Figure 6

STEP THREE: Start with your first component (flex pipe, rigid pipe, or tee). If a tee is used, the branch may be removed for installation **(Fig.7).**

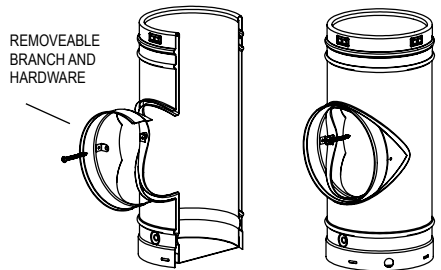


Figure 7

Duraliner pipe (flex and rigid) has male and female connectors with (4) pre-punched holes and slots that line up and are connected with stainless steel pop rivets **(Fig.8)**. Do not use screws. When connecting sections of flex pipe, it is necessary to first align the holes with the slots, and then drill through the flex

pipe with a 5/32" (4 mm) diameter twist drill bit. Next, install the pop rivets. Drilling is not needed to connect sections of rigid pipe. Connect first rigid section of DuraLiner on top of flex section with (4) stainless steel pop rivets.

Note: For insulating DuraLiner Flex, refer to the "Insulating Flex" Instruction section later in this document.

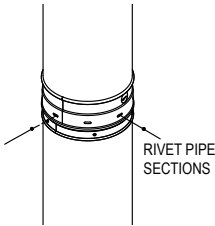


Figure 8

After pipe is riveted together, lower through the Top Plate and clamp the pipe to support (**Fig.6**). Attach next pipe section- Alternately tighten and loosen the Top Plate clamp assembly to hold and lower the pipe sections. Repeat until the flex section reaches the smoke shelf area. As the pipe is being lowered down, bend the flex pipe to fit through the damper area. Lower DuraLiner to final position.

STEP FOUR: Connect appropriate DuraLiner adapter to appliance (**Fig.4**). The DuraLiner round Appliance Connector fits either a top vented or rear vented round flue appliance. Place the proper sized connector over the flue exit and mark on the appliance the locations of the holes where the connector will be attached. Drill and tap hole in top or rear of appliance or use self tapping screws. Before attaching permanently, put a bead of high temperature sealant between appliance connector and insert. The DuraLiner oval appliance

Connector fits on top vented appliances with oval or rectangular openings.

STEP FIVE: Connect appliance to DuraLiner. (**Fig.9**)

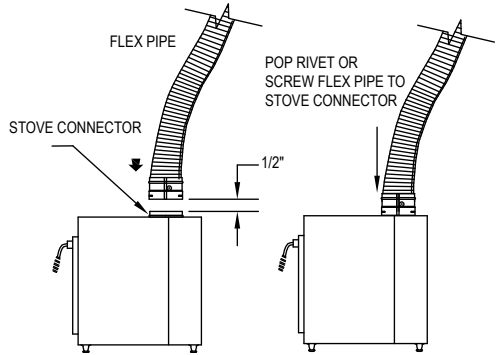


Figure 9

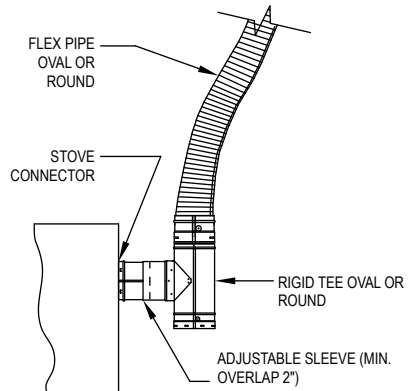


Figure 10

Note: If you have a round flue outlet on your appliance, and you have used Oval Flex or Oval-To-Round flex through the damper area, a Round-To-Oval flex piece or adapter will be needed for the appliance connection. If appliance has a round rear exit, align tee with exit of appliance. An adjustable sleeve

can be used to connect appliance to the tee using the pre-formed buttons for connection. The buttons snap into the branch ring. Slide appliance into proper position. Secure Adjustable Sleeve in final position with sheet metal screws. Rear flue exit should look like **Fig.10**.

STEP SIX: Complete "Extend-A-Cap" termination. (Reference "Extend-A-Cap" instructions later in this document)

Note: National Fire Protection Association standard #211 states; "Chimneys shall extend at least three feet above the highest point where they pass through roof of a building and at least two feet higher than any portion of a building within ten feet." (**Fig.11**)

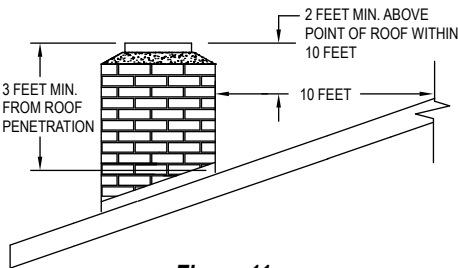


Figure 11

WALL BREACHING (**Fig.2**)

There are two types of wall breaching:

- Masonry
- Masonry and Combustible Wall

(Note: Wall penetration assemblies shall not be located directly behind a heating appliance.)

Masonry Breaching

STEP ONE: If no hole exists in the masonry, mark the center point for the location of penetration. Before cutting or drilling, check the clearance between the top of the connecting pipe to the ceiling. The minimum

clearance to the ceiling for single wall pipe is 18", and for DuraVent Close Clearance Connector (DVL) Pipe, 8" (**Fig.12**).

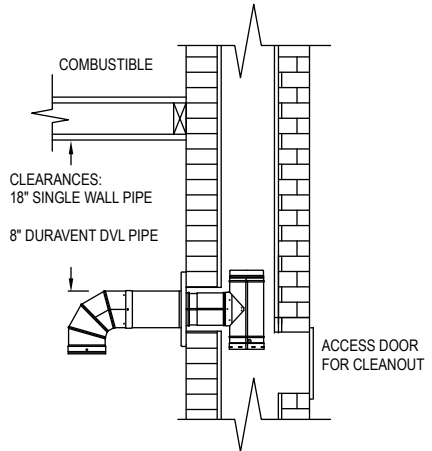


Figure 12

Using the center mark punched into the masonry, inscribe a circle of 3- 1/4 inch radius (6-1/2 inch diameter), or 4-1/4 inch radius (8-1/2 inch diameter), depending upon whether 6 inch or 8 inch Dura-Liner Pipe is used. Remove bricks as necessary to approximate a circle (**Fig.14**). Smooth out the circumference of the hole with high-temperature grout or mortar.

Follow "OPEN HEARTH INSTALLATION" instructions for installation of DuraLiner pipe in masonry. The end of the DuraLiner pipe should have a "Tee" for the wall breaching, and will be lowered to the masonry breach.

STEP TWO: As the DuraLiner rigid pipe is being lowered into final position, line up the branch of the Tee with hole in the masonry chimney wall. (**Fig. 13**). Attach Tee branch to Tee body (**Fig.7**).

STEP THREE: Using DuraVent's Masonry Thimble with Slip Connector, connect slip connector to Tee Branch with the pre-formed buttons. Slide Masonry thimble to slip connector and attach black trim plate to masonry surface using screws. (*Fig.13*)

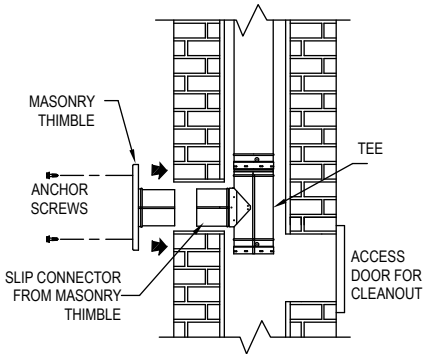


Figure 13

STEP FOUR:
Finish installation to appliance using connector pipe, maintaining required clearances.

Combustible Wall and Masonry

(See completed installation in *Fig.15*)

STEP ONE: If no hole exists in the masonry, mark the center point for the location of penetration into the combustible wall. Before cutting or drilling, check the clearance between the top of the connecting pipe to the ceiling, as shown in *Fig.12, Fig.15*. The minimum clearance to the ceiling for single wall pipe is 18", and for DuraVent DVL Connector Pipe, 8".

Scribe a circle from the center point on the wall with a 7-1/4 inch radius (14-1/2 inch diameter) (*Fig.14*). This is the size of the hole required

for the Wall Pass-Through to fit through the combustible wall. Again, before cutting this hole, check the clearance from the top of the Connector Pipe to the ceiling.

STEP TWO: If the minimum clearance to the combustible ceiling is met, then drill a 3/8 inch diameter hole through the combustible wall, at the center of the 14-1/2 inch circle you have inscribed. With a punch, mark the center on the masonry behind the wall. Cut the 14-1/2 inch diameter hole in the wall. If it is necessary to cut through studs, additional framing should be installed to maintain the structural integrity of the wall (*Fig.14*).

STEP THREE: Using the center mark

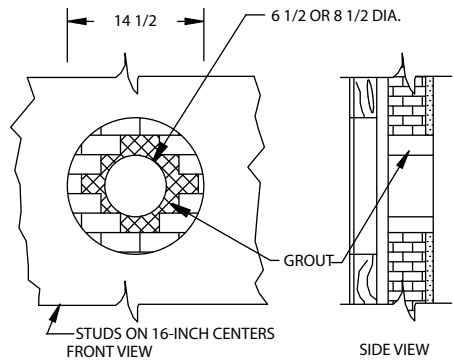


Figure 14

punched into the masonry, inscribe a circle of 3- 1/4 inch radius (6-1/2 inch diameter), or 4-1/4 inch radius (8-1/2 inch diameter), depending upon whether 6 inch or 8 inch Dura-Liner Pipe is used. Remove bricks as necessary to approximate a circle. Smooth out the circumference of the hole with high-temperature grout or mortar. Maintain the concentricity of this hole with the hole cut in the combustible wall. The completed hole should look like (*Fig.14*).

STEP FOUR: Push the Adjustable Sleeve from the Wall Pass Through into the branch of the tee. Connect Adjustable Sleeve to Tee Branch with the pre-formed buttons. Recommended to grout in place with a high temperature grout (*Fig.15, Fig.16*).

STEP FIVE: Slide the Wall Pass-Through through the square trim plate and into the

Adjustable Sleeve until the base of the Wall Pass Through is flush against the masonry (*Fig.17*) **NOTE: The Wall Pass Through must protrude a minimum of 2" into the room (Fig.16).**

Attach the 10" Long Rigid Pipe Section to the front of the Wall Pass Through with four sheet screws through the L-brackets (*Fig.15, Fig.16*) Position the appliance, at it's final location.

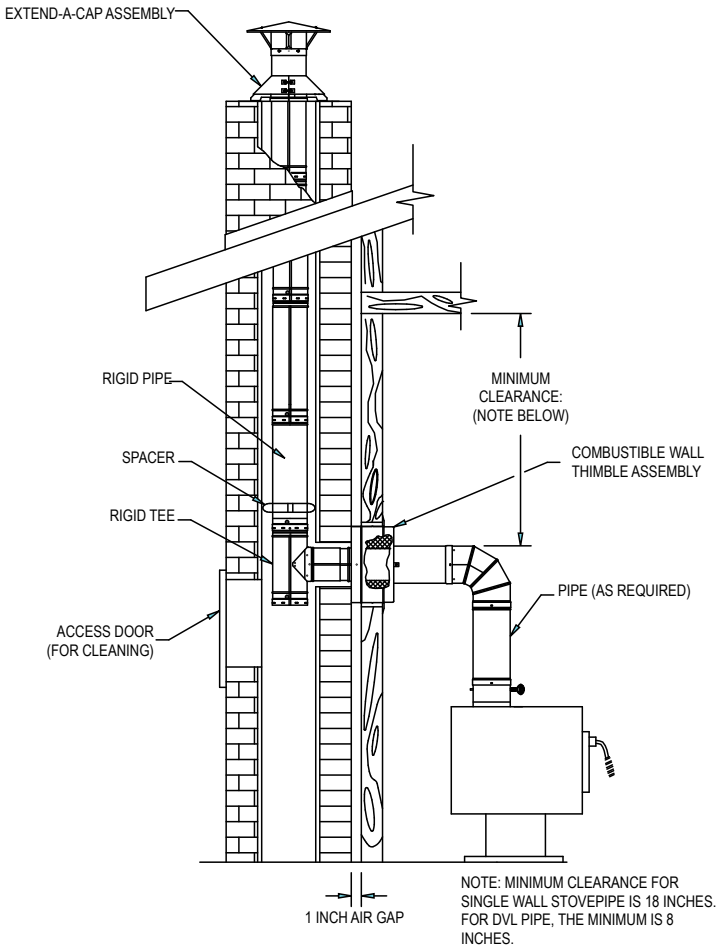


Figure 15

Check the appliance manufacturer's installation instructions to ensure proper positioning with relation to combustibles.

Complete the installation with Connector Pipe Sections and Fittings as required. Inspect the completed job to ensure it is done in a careful and workman-like manner.

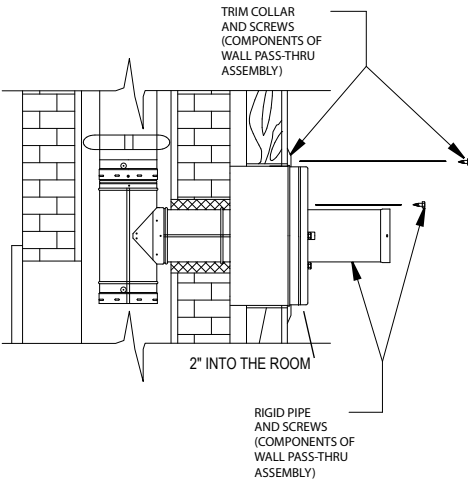


Figure 16

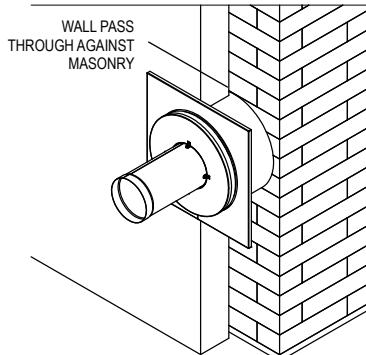
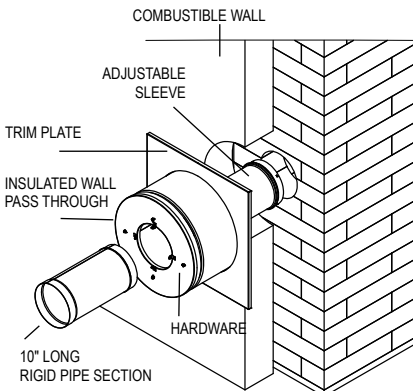


Figure 17

EXTEND-A-CAP INSTALLATION

The cap may be installed on both round and oval rigid systems.

STEP ONE: Center the base plate on the top of the masonry chimney (**Fig.18**). Trim to fit the chimney as required. Use non-hardening sealant to seal the base plate to the masonry chimney, but this can be done after the liner has been lowered into place. Anchors or screws are recommended but not required, as the base plate will ultimately be supporting the entire weight of the installation.

STEP TWO: Assemble and position the clamp assembly on top of the base (**Fig.6, Fig.18**). Adjust the bolts on the clamp assembly so that pipe sections will just pass through the clamp.

STEP THREE: Once the desired length of liner has been achieved, tighten the clamp assembly bolts, until the system is firmly supported by the base. There should not be a Duraliner pipe joint above the clamp assembly. Attach the storm collar, and seal with non-hardening silicone (500°F) sealant. Install Cap to pipe, using #8 sheet metal screws. (**Fig.19**).

Do not construct chases or other enclosures around DuraLiner pipe sections which extend above the masonry.

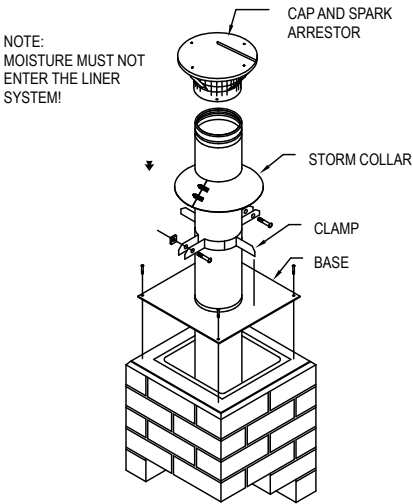


Figure 18

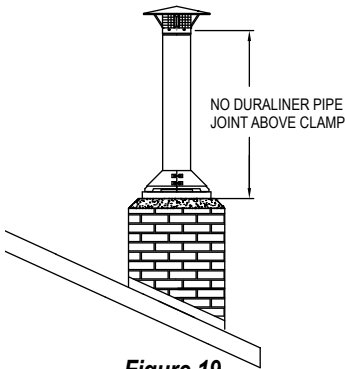


Figure 19

INSULATING FLEX

Duravent requires flex be insulated above the first Masonry flue tile, and strongly recommends ALL Flex pipe be insulated.

Method #1: PROFOIL (Fig.20)

Roll out the insulation blanket on a clean surface, foil face down. Lay the flex liner on top

and trim the blanket so that the flex end rings are exposed. Wrap the insulation around the liner lengthwise and trim it so that a butt joint is formed. Seal the joint with aluminum foil tape. Spray adhesive may be used to hold the blanket in place until it can be secured with the foil tape. A minimum of 1/2" of insulation is required. Install ProMesh protective wire mesh over the blanket(s). The ProMesh is used to protect the ProFoil insulation as the liner is lowered into the chimney. Slip the ProMesh over the insulated liner and secure one end with a stainless steel band clamp. Pull the ProMesh towards the other end of the liner so that it tightens snugly around the insulation, then trim off the excess. Secure this end with a stainless steel band clamp or alum tape.

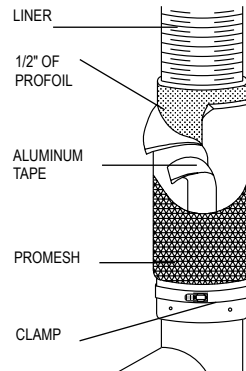


Figure 20

Method #2: INSULATION SLEEVE

Slip the Insulation Sleeve over the flex pipe. Install the bottom insulation sleeve clamp, and push the top of the sleeve down 4"-6". Position clamps so the nut and bolt connections are pointing towards the corner of a rectangular chimney.

TRANSITION ANCHOR PLATE

Ensure Round DuraLiner Pipe section will be within 12" of the top of the masonry. Secure Hanger to the top piece of DuraLiner pipe. Lower the Transition Anchor Plate (T.A.P.) and allow the legs of the Hanger to slide through the oval slots in the T.A.P. Attach T.A.P. to the top of the existing masonry with field supplied hardware. If desired, a bead of 1000°F stove cement may be used as a gasket for this surface. Pull hanger straps tight, fold down, and bolt to plate using provided hardware. Once the hanger is affixed to the T.A.P., insert slip connector down through the T.A.P. and into DuraLiner pipe (**Fig.21**). Place Chimney onto Transition Anchor Plate and affix with screws to the brackets as shown.

Note: If using DuraPlus Chimney and enclosing in a chase, the DuraPlus Starter section **MUST** be the first section of Chimney used at the Transition Anchor Plate.

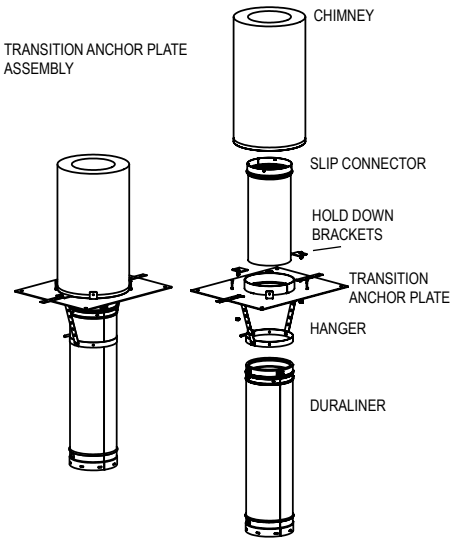


Figure 21

DURALINER MAINTENANCE

- Creosote and Soot-Formation and Need for Removal: When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors may condense on the inside of the chimney liner during slow-burning firing periods. As a result, creosote residue accumulates on the chimney liner. When ignited, this creosote makes an extremely hot fire.

- The chimney liner system should be inspected at least once every two months during the heating season to determine if a creosote or soot buildup (3mm or more) has occurred. The spark arrester screen should be checked more frequently. If creosote or soot has accumulated, it should be removed to reduce the risk of a chimney fire.

- 1. Access** – Chimney liners must be installed to provide access for inspection and cleaning.
- 2. How to Clean** – Recommend to have your chimney liner cleaned by a professional certified chimney sweep. Use a plastic, wood, or flexible steel or wire brush- do not mar the stainless steel liner surface. To remove the chimney cap for cleaning, unscrew the four screws that attach the cap's support legs to the cap base.
- 3. Coal** – Clean the chimney thoroughly within 48 hours of shutting down the appliance for the season. Check the chimney for acid corrosion regularly.
- 4. No Chemical Cleaners** – Do not use chemical chimney cleaners. Their use does not eliminate the need for mechanical cleaning and they may be highly corrosive.
- 6. In case of Fire** – If a flue fire occurs, close all appliance draft openings and call your Fire Department. Do not use the chimney again until it is inspected for possible damage.

INSTALLATION NOTES:

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M&G DURAVENT LIMITED LIFETIME WARRANTY

M&G 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®, DuraPlus HTC®, DuraChimney® II, PelletVent Pro®, DirectVent Pro®, FasNSeal®, FasNSeal® W2, FasNSeal® Flex, and PolyPro®, and M&G 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

REV 3.22.2012

Manufactured in Vacaville CA and Albany NY

DuraVent

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Customer Service Support 800-835-4429 707-446-4740 FAX www.duravent.com

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