



Installation & Maintenance Instructions

Intended for use as a chimney liner in masonry or pre-fab metal chimneys for oil burning appliances listed for use with type L vents, gas burning appliances equipped with draft hoods or listed with type B gas vents or listed solid fuel pellet fired appliances whose continuous gas temperature does not exceed 570° F.

- Z-Flex Flexible Liner
- Rain Cap
- Chimney Flashing
- Mortar Guard
- Top Support

Manufacturer's address: Z-Flex, Inc.
20 Commerce Park North
Bedford, NH 03110-6911

For Safety's Sake

Chimney relining and chimney repairs must be done with the utmost of care. Please ensure before starting that the safety aspect of the installation has been looked after. Secure your ladders and scaffold, wear protective gear and the appropriate footwear and gloves before starting. Avoid problems through proper safety measures ensuring every installation is an accident free installation.

MODEL "OS"



GENERAL INSTRUCTIONS

Z-FLEX U.S. INC.

Model OS
Part #



LINER FOR EXISTING CHIMNEY
 COMPONENT FOR CHIMNEY LINERS

For Use Only With Appliances That Burn Oil, or Category 1 Appliances which burn Natural Gas or Propane.

This Liner is to be installed in a Masonry Chimney where there is a Minimum Clearance of 0 inch Air Space Between Combustible Materials and the Chimney Exterior.

Install and Use Only in Accordance With Z-Flex Model OS Installation and Maintenance Instructions Shipped with Liner Kit or Available at www.z-flex.com.

CAN/ULC-S635 CLASS 2

WARNING

Install only in existing chimneys. For use only with appliances which burn oil or gas only. Lining systems must be installed in accordance with Manufacturer's Installation Instructions.

AVERTISSEMENT

Installer seulement dans les cheminées existantes. Aux fins d'utilisation avec des appareils alimentés au gaz ou au mazout seulement. Les systèmes de chemisage doivent être installés conformément aux directives d'installation du fabricant.

For venting of oil and gas fired appliances where the temperature of the flue gas products does not normally exceed 300°C
Evacuation pour les appareils alimentés au gaz ou au mazout dont la température des produits de combustion n'exécède normalement pas 300 °C.

INSTALLER

DATE

INSTALLER ADDRESS

Installer's Name:

Installer's Address:

Installation Date:

- A. To avoid rapid accumulation of creosote, do not use single wall liner above a chimney.
- B. The use of rain cap and flashing are required to prevent moisture from entering the liner and the space between the liner and chimney.
- C. Listed rain caps incorporating bird screens are necessary and/or required in some areas but may be susceptible to blockage through freezing moisture in areas of low ambient temperature. Consult authority having jurisdiction
- D. Liner must not be field ovalized.
- E. The safe operation of a lining system is based on the use of parts supplied by the manufacturer and its performance may be affected if the combination of these parts is not used in actual building construction.
- F. The lining system safety, code compliancy, warranty and performance may be compromised if the installation instructions are not followed.
- G. Prior to installation of the lining system into a masonry chimney, the chimney must be thoroughly cleaned and checked for cracked, loose, or missing bricks, mortar, or other materials that could inhibit correct installation of the lining system, and that the air space clearances between the masonry chimney exterior and combustible materials be checked to verify that the chimney is in accordance with applicable building code requirements.
- H. If the existing system is found not to be in compliance with applicable building code and / or these installation instructions, the liner shall not be installed until appropriate steps have been taken in order to bring the chimney or vent into compliance with the applicable code and / or these instructions.
- I. Installation of the lining system into an existing chimney or vent does not, in any way, upgrade the resulting relined system and make it suitable for any applications that require a vent or chimney of a higher temperature handling capability, an alternative fuel, or any other, more severe service than the original chimney or vent in which it is installed.
- J. The authority having jurisdiction (such as Gas Inspection Authority, Municipal Building Department, Fire Department, Fire Prevention Bureau, etc.) should be consulted before installation to determine the need to obtain a permit.

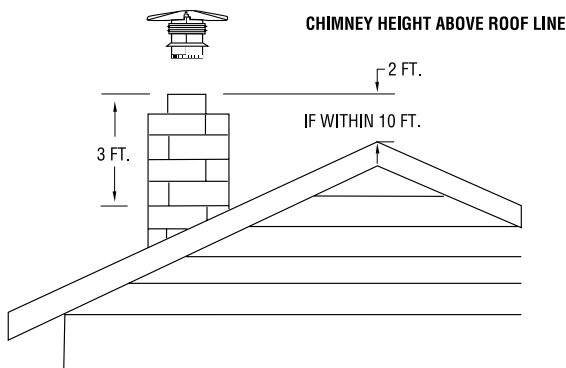
WARNING

Failure to inspect and clean lining system as outlined in maintenance instructions may result in fire, health or other safety hazards. Use these and appliance manufacturer's instructions during the examination and tests of lining system.

GENERAL INSTRUCTIONS

WARNING: Do not use any materials other than those specified in these instructions.

1. Read the installation instructions carefully prior to installing the chimney liner. If doubts exist, contact your local distributor or Z-Flex at 1-800-654-5600 (in NH 603-669-5136.)
2. Clean and repair chimney as required.
NOTE: Removal of all tar glazed creosote is a must prior to installation of chimney liner. Also, cracked, loose or missing bricks, mortar or other materials that could inhibit correct installation of the chimney lining system, should be removed/repaired.
3. Contact your local building or fire officials about any restrictions and inspections required.
4. The wall penetration assemblies must not be located directly behind a heating appliance.
5. The chimney liner must not be sized less than that specified in the appliance manufacturer's instructions.
6. The liner may be purchased in various lengths to suite chimney height. If it is necessary a single joint can be allowed to join two liners.
7. Nose Cone is a catalog item and is sold by Z-Flex.
8. Be sure to extend the chimney liner to conform to applicable building codes (local & national). That is, chimneys are required to extend at least three (3) feet above the highest point where they pass through the roof of building, and at least two (2) feet higher than any portion of the building within 10 feet (see illustration on next page).



9. The air space clearance between the masonry chimney exterior and combustible materials should be checked to verify that the chimney is in accordance with the clearance specifications contained in the NFPA 211 Standard or other recognized major building codes, i.e., on an exterior chimney clearance is 0" while on an interior chimney, clearance is 0".
10. The Z-Flex Flexible Liner is intended for use as a chimney liner in masonry or pre-fab metal chimneys for oil burning appliances listed for use with type L vents, gas burning appliances equipped with draft hoods or listed with type B gas vents or listed solid fuel pellet fired appliances whose continuous gas temperature does not exceed 570° F. The following list details only some intended uses of "OS" chimney liner. If your appliance is not on this list and you are not sure if it is appropriate to use with "OS" liner, contact the appliance manufacturer prior to installation.

- Furnace
- Water heater
- Gas fireplace
- Boiler

11. Minimum and maximum clearance:
- Maximum chimney height = 65 feet high
 - Minimum chimney height = 10 feet high
 - Minimum brick thickness = 3 ½ inches thick.

12. Clearance from connectors to unprotected combustible material shall be in accordance with the table below (ref: NPFA 211).

Description of Appliance	Minimum Clearance inch (mm)
Gas appliances without draft hoods	18 (457)
Oil appliances	18 (457)
Unlisted gas appliances with draft hoods	9 (229)
Boilers and furnaces equipped with listed gas burners and with draft hoods	9 (229)
Listed gas appliances with draft hoods	6 (152)

Note 1: These clearances apply except if the listing of an appliance specifies different clearance, in which case the listed clearance takes precedence.

Note 2: These clearances apply except if a listed wall penetration assembly is used.

13. Ensure access to clean out Tee are in accordance with the enforcing authorities and clearances are maintained to your local building codes.

INSTALLATION PROCEDURE

1. Unroll the Flexible Liner to the maximum allowable length. Take a rope slightly longer than the liner and make a knot at one end of the rope and place other end through the backside of the Nose Cone and pull the rope until the knot is completely in the Nose Cone. Place the Nose Cone at the end of liner. To secure, use duct tape or other fastener.
2. Guide the liner down the chimney (Nose Cone first) using the attached rope, to the inlet opening. (see illustration A, on next page.)
3. Insert the vertical portion of the Base Tee (if used) into the inlet opening with the capped end pointing down. Remove the Nose Cone from flex liner and fasten liner to an "A" Connector using large head stainless steel rivets (1/8" size) (use 3 rivets). Fasten the "A" Connector to the top inlet of the Base Tee using large head stainless steel rivets (use 3 rivets). To join two parts by rivet, drill 3 holes, 9/64" through the two parts. Then, fasten the rivet by using either hydraulic (mechanical) or pneumatic riveter. Use three (3) rivets. (see illustration B, on next page.)
4. Install the horizontal portion of the Base Tee and secure it with two (2) screws through the attached brackets. Using a standard mortar mix, cement around the horizontal portion of the Base Tee (or mortar guard) at the inlet.

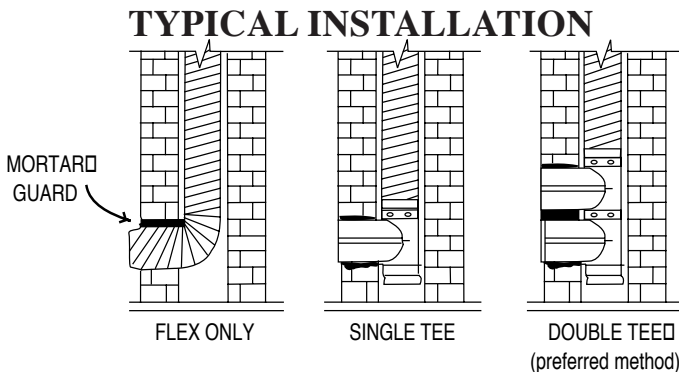


Illustration A:

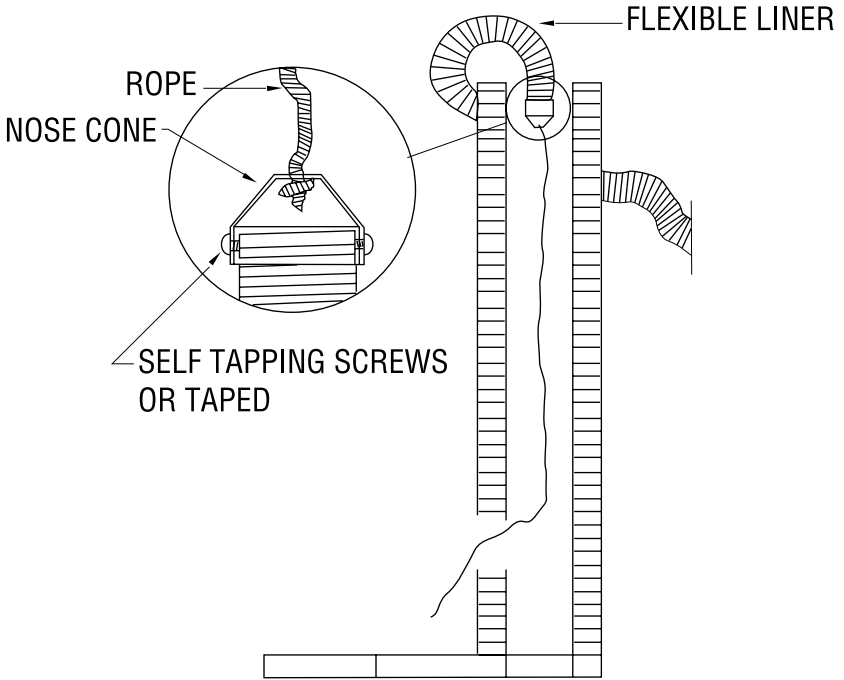
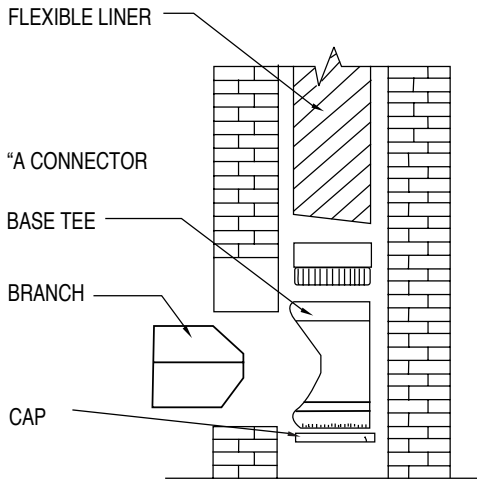
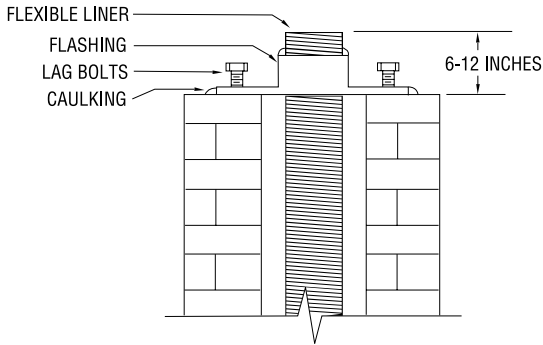


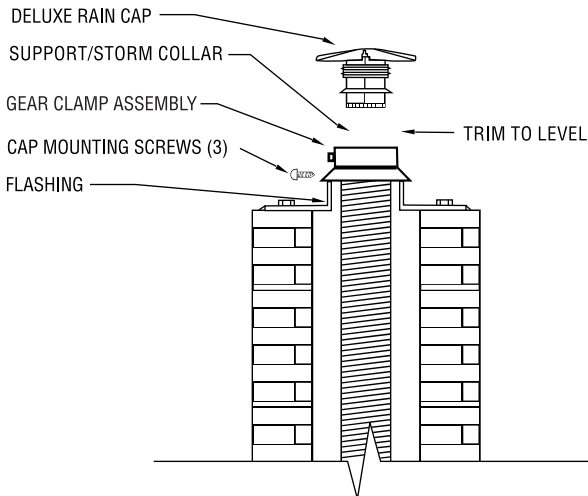
Illustration B:



5. Allow at least 6”- 12” of liner to extend above the top of the chimney. Place the Chimney Flashing over the liner and secure it to chimney top using suitable anchors. Using a quality high temperature sealant, caulk all joints and paint if necessary (see illustration below.)



6. Install combination Storm/Support Collar by tightening the gear clamp assembly.



7. Trim the liner to level using a knife or a hacksaw. Next, install Rain Cap and secure it with gear clamp to the Support Collar.

MAINTENANCE INSTRUCTIONS

- A. Manufacturer's address: Z-Flex, Inc.
20 Commerce Park North
Bedford, NH 03110-6911
Tel: 1-800-654-5600
in NH 603-669-5136

The replacement parts/components for the "OS" chimney liner system are available from Z-Flex, Inc.

- B. **WARNING: DO NOT USE ANY MATERIAL/PARTS OTHER THAN THOSE SPECIFIED IN THE INSTALLATION INSTRUCTIONS.**
- C. Soot: Formation and need for removal.
When fuel is burned it produces soot. The chimney should be inspected every two (2) months during the heating season to determine if a build-up has occurred. If soot has accumulated, it should be removed to reduce the risk of chimney fire. The recommended method of cleaning your Z-Flex Liner is with a poly or wire chimney brush approximately 1/8" larger than the diameter of your liner. The liner should be brushed until all soot has been removed.
- D. It is recommended to have the chimney lining system checked by a qualified chimney inspector, such as a certified chimney sweep, at least once annually following initial installation of the lining system.
- E. Any heating appliance connected to the chimney liner must not have a flue outlet size larger than the chimney liner area at its smallest point.

PARTS COMMON TO "ZR" AND "OS" LINER SYSTEMS

- Base Tee
- Chimney Flashing
- Deluxe Rain Cap
- Support / Storm Collar

Z-FLEX™ LIFETIME LINER WARRANTY

Z-Flex, Inc. warrants its **Stainless Steel Chimney Liners** to the original purchaser or if purchased by a contractor, to the end user. The warranty is valid for as long as the original purchaser owns the property in which the liner is installed, provided it is installed according to UL installation instructions. Deviating from the installation and use instructions included with the liner will void the warranty.

Z-Flex warrants that at the time of shipping the **Stainless Steel Chimney Liner** will be free of manufacturer's defects in material and/or workmanship.

Liability under the warranty shall be limited to the replacement of the liner and accessories found to be defective according to the terms of the warranty, and shall not include replacement installation or other costs.

IMPORTANT: Z-Flex Chimney Liners are designed to be used with these fuels only: natural gas, propane gas, oil, and seasoned hardwood. The following fuels are not recommended for use in Z-Flex chimney liners: coal, ocean driftwood or garbage. Excessive condensation with high chlorine content will corrode some stainless steel. Where these conditions prevail, we recommend AL29-4C™ Stainless Steel Liners. Refer to equipment manufacturer's installation instructions for proper liner material for appliances which produce condensation.

Excessive creosote accumulation, sulphur residue from burning coal or the use of unapproved chemical cleaners may cause chimney fires that could warp the liner or may corrode the liner. Such misuse will void the warranty.

To activate the warranty, the purchaser or end user must complete and return the Z-Flex warranty registration card within ninety (90) days of installation. Upon receipt of written notice of any defect, Z-Flex reserves the right to examine or engage others to examine the liner. Such examination must establish reasonable proof of defective material or workmanship justifying replacement.

The sole remedy for breach of any and all warranties and the sole remedies for Z-Flex's liability of any kind shall be limited to the remedies provided herein. Z-Flex shall not be liable for any special, incidental, indirect or consequential damages, or for any claim against the purchaser or end user by any other party. EXCEPT AS SPECIFICALLY PROVIDED HEREIN, Z-FLEX DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. Some states do not allow the exclusion of implied warranties or the limitation or exclusion of liability for incidental or consequential damages, so the above limitations may not apply to you. You may also have other rights which vary from state to state.

For further information, call or write to:

20 Commerce Park North
Bedford, NH 03110-6911
in NH: (603) 669-5136
Toll Free: 1-800-654-5600

20 West Pearce Street
Richmond Hill, Ontario
L4B 1E3
Tel: (416) 731-9411

WARRANTY REGISTRATION CARD

Z-FLEX™

For this warranty to be effective this card must be completed upon purchase of the covered liner and returned to Z-Flex, Inc.

NAME: _____

ADDRESS: _____

LINER PURCHASED FROM: _____

DATE OF INSTALLATION: _____

MODEL OF VENTED APPLIANCE(S): _____

I understand and agree
to the warrant as stated: _____

(signature)