

LINER SIZING

- ❖ To size the liner correctly please refer to N.F.P.A. 54 and/or appliance manufacturer's installation instruction. Please note that if you are using N.F.P.A. 54 B-Vent sizing charts, maximum capacities must be derated 20%. **Incorrectly sized liner can lead to performance problems and condensation within the lining system. Undersized or over sized liners may also cause spillage of carbon monoxide which can cause severe injury or death. Please call National Chimney Supply, Inc. if you have any questions or are not sure of the correct liner size.**

DETERMINE IF THE CORRECT SIZE LINER WILL FIT INTO THE CHIMNEY.

- ❖ The Model DB M-Flex liner can be installed with-in the existing flue tile or the flue tile can be removed. It is extremely important that the correct size liner will fit into the chimney. Certain factors, such as chimney condensation and offsets in the chimney, may change the size of the interior of the chimney. It is best to "prove" the interior of the chimney before trying to install the liner. This can be done by lowering a short piece of the intended liner size down the chimney to see if it will pass all the way to the bottom.
- ❖ After inspection, if cleaning is required, use a soft plastic brush the same size as the interior of the liner. Either push the brush up from the bottom or down from the top using the appropriate number of extension poles for the height of the chimney. When cleaning from the top remove the rain cap before inserting the brush in the top of the liner.

All components, stainless steel and Aluminum liner manufactured at one or more of the following locations.

National Chimney Supply, Inc.
3 Green Tree Drive
South Burlington, VT 05403

National Chimney Supply, Inc.
4219 Howard Avenue
Kensington, MD 20895

M-Flex Model DB Installation Instructions

M-Flex Liner

M-Flex Model DB Aluminum Liner

M-Flex Model DB is a 2 ply, 3003 aluminum liner used to vent category I gas appliances with A.F.U.E.'s of 83% or lower. In many cases today gas appliances are being vented into over sized masonry chimneys. This practice may cause serious condensation and performance problems. By relining the chimney you can reduce the condensation problems and improve the performance of the appliance.

Care must be taken when installing this product. Model DB liner is a strong material, but will not be able to take the punishment that a SS liner will take during installations and operation of the appliance. Other considerations that should be taken into account is what the chimney was used to vent before the gas appliance was installed. If fossil fuels or solid fuels were vented into the chimney any residue left behind must be completely removed before the installation of the Model DB liner. The residue from these types of fuels is very corrosive and will eat the liner from the outside in, if not removed. If these residues can not be removed than the Model DB liner must be encapsulated in a non combustible material, such as Premier Wrap, before installation. Chloride contaminated combustion air must also be taken into consideration. This type of contamination can be produced by salts in the basement foundation, powdered laundry detergent, or a cat litter box. If you are not certain that these conditions do not exist, outside combustion air must be introduced to the appliance to alleviate the effects of contamination.

This liner carries a 15 year limited warranty.

M-Flex Model DB is tested and listed by Underwriters Laboratories to UL 441.

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MODEL DB M-FLEX ALUMINUM CHIMNEY LINER INSTALLATION INSTRUCTIONS.

Model DB Aluminum Chimney Liner is manufactured by National Chimney Supply, Inc.. This lining system is designed and listed to be installed within masonry chimneys used to vent gas (natural and propane) burning, Category I appliances that have an A.F.U.E. of 83% or lower, or any appliance listed to be vented on type B-vents. Never connect any appliance that burns wood, coal, oil or any gas appliance with category of II, III, IV to a Model DB Aluminum liner.

A nationally certified chimney sweep or other qualified chimney professional should install this liner.

Each installation must be planned for the best performance of the appliance being installed. Refer to appliance manufacturer's instructions to determine any special venting requirements for the specific appliance.

The installer must contact the local building and fire code officials to determine any installation or inspection requirements. Building permits may be required before installation. M-Flex Model DB must be installed as per the local building codes. Please remember, regardless of national codes, the local building inspector has the ultimate jurisdiction.

Do not use any materials or components other than those specified in these installation instructions.

Materials needed to install M-Flex Model DB Aluminum Liner

Model M-Flex DB	Aluminum Liner
NC(dia)MCAL	Mortar Collar
NC(dia)TPAL	Top Plate
NC(dia)CAL	Coupler
(dia)MCU	Liner Rain Cap

INSPECTION AND PREPARATION OF CHIMNEY

The existing chimney must meet codes for proper construction and compliance requirements before the liner can be installed.

- ❖ The Chimney must be a minimum of 10 feet in height, and no more than 100 feet in height.

INSTALLING THE MODEL DB M-FLEX LINER.

- ❖ Make sure the thimble to be used in the installation is in the proper position to maintain the correct clearance to combustibles for connection of the connector pipe from the appliance. If clearances are not correct, reconstruct thimble to the proper position.
- ❖ Determine the length of the liner by measuring from the thimble at the top of the chimney. Be sure to add length to accommodate any offsets and top hardware.
- ❖ Install the mortar collar in the thimble. Make sure the "Gas Only" Tag is in place and visible.
- ❖ Carefully lower the liner down inside the chimney. When the liner reaches the point just above the thimble, reach into the thimble and carefully pull the liner through the mortar collar in a ninety-degree bend. Be very careful not to crush the liner as you bring it through the mortar collar.
- ❖ At the top of the chimney slide the top plate down over the liner and attach to the top of the chimney using silicone or masonry fasteners. Secure the liner to the collar on the top plate using three zinc coated screws.

- ❖ Slide liner cap down into liner and secure to top plate lip using three zinc plated screws.
- ❖ Connect appliance to liner using appropriate type of connector pipe. Connector pipe must be installed to correct clearance to combustibles per local building codes and/or appliance manufacturer's installation instructions.

Inspection and Maintenance Instructions

Should you have any questions concerning inspection and maintenance of the Model DB Aluminum Liner please contact: **National Chimney Supply Inc.**

**3 Green Tree Drive
South Burlington, VT 05403**

- ❖ Inspection of the DB aluminum liner should be done, at minimum, once per year, at no more than 12 month intervals from the date of installation. If upon inspection it is necessary to clean the liner, this should be carried out by a nationally certified chimney sweep or other qualified chimney professional.
- ❖ To properly inspect the liner system it is necessary to gain access to the top and/or bottom of the chimney. To inspect the liner from the bottom remove the connector pipe from the chimney. Using a flash light and a mirror look in and up the liner to visually inspect for blockages or debris. To inspect the liner from the top, remove the liner rain cap. Using a flash light, shine the light down into the liner from the top and visually inspect for blockages and debris. Note: If the chimney has offsets you may be unable to see all the way to the bottom or top depending on your inspection location. In this case it will be necessary to inspect the liner from both the top and bottom of the chimney.
- ❖ The chimney must have the proper applicable wall thickness, i.e.: minimum of 4 inches (nominal) solid masonry units.
- ❖ Connector pipes and wall pass through shall be installed per appliance manufacturers instructions with regards to clearance and construction. See also N.F.P.A. 54 for reference.
- ❖ The chimney must extend at least three feet above the highest point where it penetrates the roof structure, and at least two feet higher than any portion of the building or adjoining structures within ten feet.
- ❖ Minimum airspace between the liner and the interior of the chimney to be maintained is zero inches. Clearance to combustibles from the exterior of the chimney may also be zero inches.
- ❖ The chimney must be thoroughly cleaned to remove all residues including complete removal of any glazed creosote before the liner can be installed. The chimney must also be inspected for structural integrity. Any missing, cracked, or loose masonry and mortar joints must be repaired before the liner is installed.