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CHIMNEY LINING SYSTEM MODEL INOX 2100

INSTALLATION AND MAINTENANCE INSTRUCTIONS

INSTALLATION INSTRUCTIONS

Congratulations, you have acquired a superior quality chimney lining system which will provide you with many years of service and safety. The Inox 2100 liner is designed and laboratory tested to withstand 2100°F peak temperatures, and is listed for gas, oil and wood burning appliances. It can be installed in masonry chimneys wich may or not incorporate a fire-clay tile or factory-built chimneys.

APPLIANCES

For connection to the following appliances: Gas furnaces Oil furnaces Wood furnaces Wood or pellet stoves and inserts.

GENERAL REQUIREMENTS

To ensure the safety of the installation, use only Aston model Inox 2100 parts throughout, installed according to the following instructions. The use of any other parts or methods will void the certification of the system.

PERMIT

Some municipalities may require a permit or authorization for the installation of a liner in an existing chimney. Consult your local fire department, permit and inspection service, or any other authority having jurisdiction prior to installing your lining system.

LINER SIZE

The compatibility between the liner size and the type of appliance should be verified. It should not be less than the size specified in the appliance installation instructions unless the system is checked and approved by a certified technician. The selection of the appropriate liner size is necessary for proper draft, especially in areas with sustained low ambient temperatures.

CHIMNEY INSPECTION

The chimney should be inspected by a certified technician prior to installing the liner system. It should be checked for cracked or loose bricks, degraded mortar, open joints, insufficient clearances between the outside of the chimney and combustible construction, etc. The regulations require that the liner system be installed in existing chimneys which meet the requirements of the National Building Code. Repair the chimney as required before proceeding.

SWEEPING

The chimney should be swept before the lining system is installed. Creosote and soot residues between the liner and the chimney can ignite and produce a chimney fire. Each installation unique and has specific aspects. Consult your representative for any additional information on installation standards, conditions, and requirements specific to your installation and region.

MAXIMUM HEIGHT

The maximum liner system height is 65'(20 m).

DESCRIPTION OF THE REQUIRED PARTS

Straight sections;	available in several lenghts, the straight sections are used to assemble the flue.
Tee :	allows connection of the appliance to the liner or access to the liner by the ash clean-out door.
Plug:	seals off the underside of the lower tee.
Offsets:	used for vertically offset installations.
Flashing :	surrounds the liner and caps the top of the chimney.
Collar (flashing) :	covers the space between the liner and the flashing.
Cap (rain) :	prevents entry of rain or snow into the liner.
Rivets :	the rivets are required for the assembly of the joints between the sections, offsets and tees. The female end of the joint is factory drilled. The male end is drilled during installation.

INSTALLATION

The liner system can be installed in a straight chimney (see figure 1a) or in a chimney serving an insert installed in a fireplace opening (see figure 1b). It can also be installed in an offset chimney, using the appropriate offsets. Avoid sharp bends that would crimp and restrict the cross-section of the liner. In all cases, the liner is installed by the top of chimney, according to the following steps:

- 1. Mesure the total height of the chimney and locate the height of the connection to the appliance. If the chimney has an ash clean-out door, locate the height of the door. Depending on the type of installation, a tee or elbow will be placed opposite each opening.
- For a straight chimney, fill the base of the chimney with bricks or other equivalent noncombustible materials 2. to form a solid and permanent support for the lower tee. Note that the support should be adequate for the entire length of the liner. In the case of a fireplace insert, the lower offset is installed under the first section to be lowered into the chimney, If the available space is sufficient. M not, the elbow is installed through the fireplace opening.
- 3. Assemble the tees and the straight sections in their required position for proper alignment with the appliance connection and dean-out door openings. Install the plug under the lower tee. If required for length adjustment, cut the female end of the straight section using metal snips. Note that the male (crimped) end faces down (see figure 2).
- 4. Drill (3)1/8" (3mm) holes and rivet each joint.
- 5. From the roof, lower the liner, either partially or completely assembled, into the chimney. Watch for electrical installations nearby. If the liner is too long, the sections can be riveted and lowered into the chimney one by one, using a support rope (see figure 3).

- 6 The liner should extend outside the top of the chimney between 8" (200mm) minimum and 10" (250mm) maximum (see figure 4).
- 7 The air space between the liner and the inside of the chimney should be kept clear. Do not place insulation material around the liner.
- 8 Dot not screw the liner sections into the chimney. Flue gas temperatures produce a natural thermal expansion of the liner. It should be allowed to move unrestrained up and down the chimney with each thermal cycle.
- Place the flashing over the chimney top and bolt it into place using (4)1/8" (3mm) concrete fasteners. Cut 9 off the excess flashing using metal snips (see figure 5).
- 10 Assemble the collar around the liner, 1/2" (12 mm) above the flashing. The collar covers the space between the flashing and the liner, to prevent entry of rain and snow.
- 11. To prevent the entrance of rain inside the liner, a rain cap must de used. Use 3 metal screws to assemble the rain cap into the liner. The cap should be removable to allow inspection and sweeping. 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.
- 12. From the base of the chimney, remove the adhesive tape and the support rope. Proceed to install the tee connector though the appliance opening. Fasten the connector in place using the 2 draw bolts provided. Fold the metal strips over the inside of the connector (see figure 6). In the case of a fireplace insert, install the inclined sections and the offset from the inside of the fireplace opening.
- 13. Repeat the procedure above for the tee opposite the clean-out door opening.
- 14. The liner is ready to be connected to the appliance (gas, oil or wood). Assemble the appliance chimney connector to the base tee. Follow the appliance instructions for the appliance installation procedure.

MAINTENANCE INSTRUCTIONS

Inspect your chimney at regular intervals during the heating season. New wood burning appliance installations should be inspected after each cord of wood burned to verify the amount of creosote which has accumulated in the flue. Gas and oil appliance installations require less frequent inspections. Inspect them annually or according to the appliance manufacturer's instructions. As a general rule, if the soot or creosote accumulation in the flue exceeds 1/8" (3mm), it should be removed to reduce the risk of a chimney fire. Homeowners must be reminded to check the rain cap for icing during low ambient temperatures.

CREOSOTE 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 condense in the relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on the liner. When ignited this creosote makes an extremely hot fire. It is recommended to have the lining system checked and cleaned if required by a certified chimney sweep once a vear.

To sweep the chimney liner, remove the rain cap and brush the liner from top to bottom to completely remove creosote and soot which has accumulated in the liner. Reinstall the rain cap. Deposits which have fallen to the base of the liner should be removed with a vacuum cleaner or equivalent method after each cleaning.