Household dust is typically an accumulation of particles in a size range of .01 micron (1/2,540,000ths of an inch—invisible to the naked eye) up to 100 microns (the diameter of a human hair). Pollens and spores, which can aggravate allergy symptoms, are usually in the 10–100 micron size range. The efficiency of this air cleaner on the smallest particle which can be seen with the naked eye (approximately 10 microns) reaches 99%.

**COMMON POLLUTANTS**

Particle Sizes in Microns* (1 micron = 1/25,400 inches)

<table>
<thead>
<tr>
<th>Size (Microns)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1–0.3</td>
<td>Smog</td>
</tr>
<tr>
<td>0.3–1.0</td>
<td>Pollen, Spore</td>
</tr>
<tr>
<td>1.0–5.0</td>
<td>Soil</td>
</tr>
<tr>
<td>5.0–10</td>
<td>Dust</td>
</tr>
<tr>
<td>10–100</td>
<td>large Pollen, Spore</td>
</tr>
</tbody>
</table>

Visible household dust particles, and nearly all pollen and spore particles, can be caught and permanently held, very easily, if you can get them to the air cleaner. With central high efficiency air filters, the blower of your heating/air conditioning system performs the air movement function.

Continuous air cleaning is accomplished when your thermostat is set for continuous air circulation. If continuous air cleaning is not required, set your thermostat fan switch to the setting you desire. The “Automatic” setting turns on the indoor blower only when heating or cooling is required. The “Fan,” “ON,” or “Manual” settings allow you to control blower operation.

If removal of household dust is the major benefit you seek to achieve using your high efficiency air cleaner, you should operate your indoor blower in the “Continuous” mode during and after periods when dust is being generated or “stirred up.” Whether you typically choose continuous or intermittent fan operation, you should always operate the fan continuously during, and for the first few hours following, vacuuming. The vacuuming process dislodges large volumes of dust particles, which must be drawn into your air filter. Many of the dust particles are so heavy they “fall out” of the air before they can be drawn into the air cleaner. This is why it is more efficient to dust your house several hours after vacuuming.
HIGH EFFICIENCY MEDIA AIR CLEANER

Your air cleaner is an investment in healthful comfort for your family and protection for your home and furnishings. With this purchase, you have invested in an air cleaner that is many times more efficient than ordinary furnace or air conditioning filters with which you may be familiar. There are many benefits you may expect from your air cleaner. This booklet is furnished to acquaint you with these benefits, and with operation and maintenance information, to ensure the high level of performance this high efficiency air cleaner is designed to provide.

PERFORMANCE

Contaminants are everywhere—even in the air we normally consider fresh from outdoors. Outdoor air contains pollen, mold, spores, dust and other airborne particles. If you have allergies, these allergens can become a nightmare in your home. Infiltration of outside air into the home is minimized when doors and windows are kept closed as much as possible. Your new Healthy Climate air cleaner provides more assistance by removing up to 99% of these contaminants (6 microns or larger) from the air as it passes across the filter. Other troubling contaminants originate inside the house: household dust and tobacco smoke are two examples.

Air cleaners are effective only when air is circulated through them. It is impossible to ensure that all air containing contaminants pass across the filter; therefore, it is unrealistic to expect complete removal of all contaminants. However, the efficiency of the air cleaner increases with use, and the filter will remove a very high percentage of the pollutants from the air as it passes across the filter.

Particle sizes of pollutants vary and are measured in microns. A micron is 1/25,400th of an inch. A commonly used comparison is that it would take 200 microns to reach across a dot made by a sharp pencil. The accompanying chart shows the range of sizes, in microns, of the most common pollutants.

MAINTENANCE

Your Healthy Climate air filter requires no electrical component service. The filter generates no ozone, and is not affected by relative humidity or temperature. The only maintenance required is the periodic replacement of the disposable media, which can be accomplished in just a few minutes. The required frequency of replacement varies with operation time and the amount of contaminants in the home. It is also affected by: number of people and their activities, the amount of carpeting, pets, size of home, number of smokers, and the pollution level of the area. We recommend replacing the media each year. More frequent media changes may be necessary in high dust environments. The system should be checked for optimal performance with routine maintenance performed at the beginning of every heating and cooling season.

TO OBTAIN SERVICE PARTS AND/OR REPLACEMENT MEDIA, PLEASE PROCEED AS FOLLOWS:

- Call the heating and air conditioning contractor who installed your Lennox Healthy Climate™ High Efficiency Media Air Cleaner.
- Check model number of your media air cleaner located on unit front door

Detailed instructions on the easy replacement of the media are furnished with each replacement media.

Use only Lennox Healthy Climate replacement media X0444 (model PMAC-12C) or X0445 (model PMAC-20C) for continued high performance of your Healthy Climate High Efficiency Media Air Cleaner.

INSTALLATION & MAINTENANCE INSTRUCTIONS

Healthy Climate™ Pleated Media Air Cleaners

Model Numbers PMAC-20C and PMAC-12C

Please note: Unit must be installed by an HVAC contractor to ensure safe operation and warranty on the unit.

READ INSTRUCTIONS BEFORE BEGINNING INSTALLATION

WARNING! 120/220 volts may cause serious injury from electrical shock. Disconnect power to the furnace/air conditioner before starting installation.

Sharp edges may cause injury from cuts. Use care when cutting and handling sheet metal.

CAUTION: To prevent component failure, do not install the Healthy Climate™ Air Cleaner on the warm air supply or in an area where the temperature may exceed 180°F. This may include areas above heat exchangers in downflow furnaces or above exhaust flues in lowboy furnace cold air returns.

IMPORTANT: The Model PMAC-20C and PMAC-12C Healthy Climate™ Air Cleaners are designed for systems with airflow up to 2000 cfm and 1200 cfm respectively. Follow the furnace manufacturer’s recommendations for the number of return air plenums and install one Healthy Climate™ Air Cleaner in each. The air cleaner can be installed horizontally, vertically, or at an angle depending on furnace type. See Figures 1, 2, 3, and 4 on reverse side for orientation with various types of applications. Note airflow direction arrows on inner compartment.

Allow 26° clearance in front of the Model PMAC-20C and 28° in front of the Model PMAC-12C for media replacement.

Figure 5 shows the dimensions for both air cleaners. If a transition duct is required, see figure 4 for recommended duct angles.

INSTALLATION:

1. Please leave literature packet with homeowner.
2. Remove pleat spacers and media carton.
3. Remove air cleaner door and pull inner assembly out of outer housing.
4. Turn off furnace/air conditioner.
5. Remove existing filter and thoroughly clean the blower and blower compartment.
6a. (Side mount only) With airflow label in proper direction, attach outer housing to furnace/air conditioner and seal connection. Attach duct work to inlet side of air cleaner and seal connection.
6b. (Bottom mount only) With airflow label in proper direction, attach air cleaner to platform and seal connection. Mount furnace/air conditioner on top of air cleaner housing and seal connection.
7. Install the media using the instructions on the media carton.
8. Insert the inner assembly into the outer housing and replace door.
9. Return power to the furnace/air conditioner.