



# HEPA

Healthy Climate®

## HEPA Bypass Air Filtration System

Bulletin No. 210397

August 2021

Supersedes December 2011

### RESIDENTIAL PRODUCT SPECIFICATIONS



### MODEL NUMBER IDENTIFICATION

#### HEPA - 20

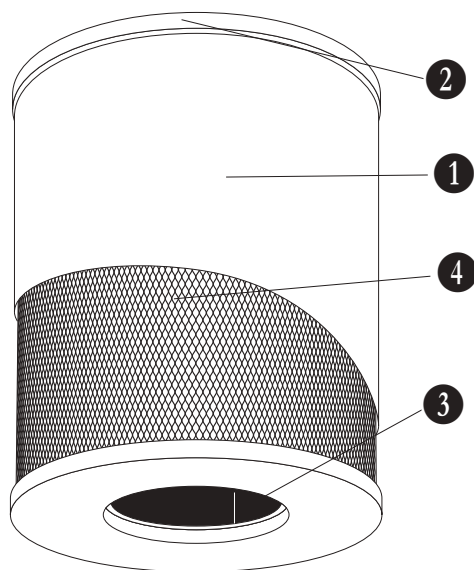
**Unit Type**  
HEPA = High Efficiency Particulate Air

**Nominal Capacity**  
20 = 180 cfm  
40 = 320 cfm  
60 = 660 cfm

### CONTENTS

- Approvals And Warranty . . . . . 2
- Dimensions . . . . . 4
- Features . . . . . 2
- House Size Vs. Air Changes Per Hour . . . . . 4
- Maintenance Items - Order Separately . . . . . 3
- Optional Accessories - Order Separately . . . . . 3
- Specifications . . . . . 3
- Typical Applications . . . . . 5

## FEATURE HIGHLIGHTS



1. Carbon Pre-Filter
2. HEPA Filter
3. Inner Charcoal Filter
4. HEPA Filter Mesh (Protects HEPA Filter)

## APPROVALS AND WARRANTY

### APPROVALS

- UL Listed

### WARRANTY

- All Covered Components
  - Limited five year warranty in residential applications
  - Limited one year in non-residential applications

**NOTE** - Filter media is not covered.

**NOTE** - Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details.

## FEATURES

### APPLICATIONS

- Designed for installation in forced air systems or can be used independently
- When connected to the return air duct, the HEPA unit diverts some of the return air into the three-stage filter
- Cleaned air is returned to the return air duct to be heated or cooled
- Designed to capture 99.97% of particulates 0.3 micron and larger of the air that passes through it
- Unit can be installed in any position
- Quiet operation
- Generates no ozone
- Constant blower operation will achieve the best air cleaning results with a continual flow of dirt laden air cleaned by the HEPA filter

### Cabinet

- Constructed of painted, heavy-gauge galvanized steel
- Completely insulated for quiet operation
- Insulation also reduces heat loss and gain

### Electrical

- Power cord with three-prong plug for 120V electrical connection

### THREE-STAGE FILTRATION PROCESS

- Creates the most effective filtration system possible
- Each filter is independent and can be replaced separately

#### STAGE 1:

##### 1 Carbon Pre-Filter

- An inexpensive pre-filter to remove larger particulates from the air
- Prolongs the life of the HEPA filter

#### STAGE 2:

##### 2 HEPA Filter

- Removes 99.97% of particulates 0.3 micron and larger
- The air which is now almost completely free of particulates then passes through the third stage filter

#### STAGE 3:

##### 3 Inner Charcoal Filter

- 1/2 in. thick carbon filter for removing chemicals and odors from the air
- Clean air is then discharged from the unit to be introduced into the surrounding air

**NOTE** - An optional heavy-duty granular Coconut Shell Carbon Canister is also available for maximum removal of chemicals and odors.

## MAINTENANCE ITEMS / OPTIONAL ACCESSORIES

### FILTRATION

#### Maintenance Items

##### Annual Maintenance Kit

- Includes: carbon pre-filter (1), charcoal inner filters (4), and O-ring (1)

##### Carbon Pre-Filter

- Dust and other large particles will collect on the pre-filter over time
- The color of the filter will change as particulates build up on the pre-filter
- Change the carbon pre-filter when you can see the particulate build-up starting to clog the pre-filter
- Estimated life: 12 months

##### Inner Charcoal Filter

- Filter captures odors and gases, but will not change the filter's appearance
- Replace inner charcoal filter when it no longer appears to capture odors, or once every three months, whichever occurs first
- Estimated life: 3 months

**NOTE** - Maintenance Kit items are also available separately.

##### HEPA Filter

- HEPA cartridge filter will darken as it captures particulates

**NOTE** - See Installation Instructions for replacement color examples.

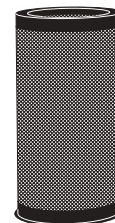
- Estimated life: 2-5 years

**NOTE** - Filter life is based on average air particulate content. Some filters may need to be changed more often due to high dust, humidity, or chemicals found in the indoor air.

#### Optional Accessories

##### Coconut Shell Carbon Canister

- Canister filter can be used in place of the Carbon Pre-Filter
- Coconut shell activated carbon
- Estimated life: 12 months



### CONTROLS

#### Optional Accessories

##### HEPA Interlock Kit

- Allows HEPA filter system to operate only when furnace/air handler blower is operating

## SPECIFICATIONS

General Data	Model No.	HEPA-20	HEPA-40	HEPA-60
Nominal Air Flow (at 120VAC and 0 in. w.g. external static pressure)		180 cfm	320 cfm	660 cfm
Electrical characteristics		120V-60hz-1 ph		
Power Connection		Power cord with 3-prong plug		
Power Consumption		125 watts	125 watts	225 watts
Amp Draw		1	1	1.8
Connections - in.	inlet/outlet - round	8	10	10
	outlet - round	6	8	8
Operating Temperature Range		30 - 95°F	30 - 95°F	30 - 95°F
Shipping weight - lbs. (1 package)		30	44	49

## MAINTENANCE ITEMS - ORDER SEPARATELY

Annual Maintenance Kit Includes: carbon pre-filter (1), inner charcoal filters (4), O-ring (1)		<b>X5803</b>	<b>X5804</b>	<b>X5804</b>
Replacement Filter Media	HEPA Filter	<b>92X17</b>	<b>92X10</b>	<b>92X10</b>
	Carbon Pre-Filter	<b>X4137</b>	<b>X4138</b>	<b>X4138</b>
	Inner Charcoal Filter	<b>X2678</b>	<b>92X09</b>	<b>92X09</b>

## OPTIONAL ACCESSORIES - ORDER SEPARATELY

Coconut Shell Carbon Canister		<b>94X98</b>	<b>98X75</b>	<b>98X75</b>
HEPA Interlock Kit		<b>X2680</b>	<b>X2680</b>	<b>X2680</b>

## HOUSE SIZE VS. AIR CHANGES PER HOUR

### Notes:

Industry experience indicates that one (1) air change per hour generally provides adequate air cleaning. Actual results will depend on multiple factors such as outdoor particulate levels, infiltration rate, indoor activities, etc.

The chart is based on an infiltration rate of 0.3 air changes per hour, which is typical for residential construction. Infiltration typically brings in more particulates and thus increases the air changes per hour needed for HEPA bypass filtration. Other particulate sources in the house will require higher air changes per hour.

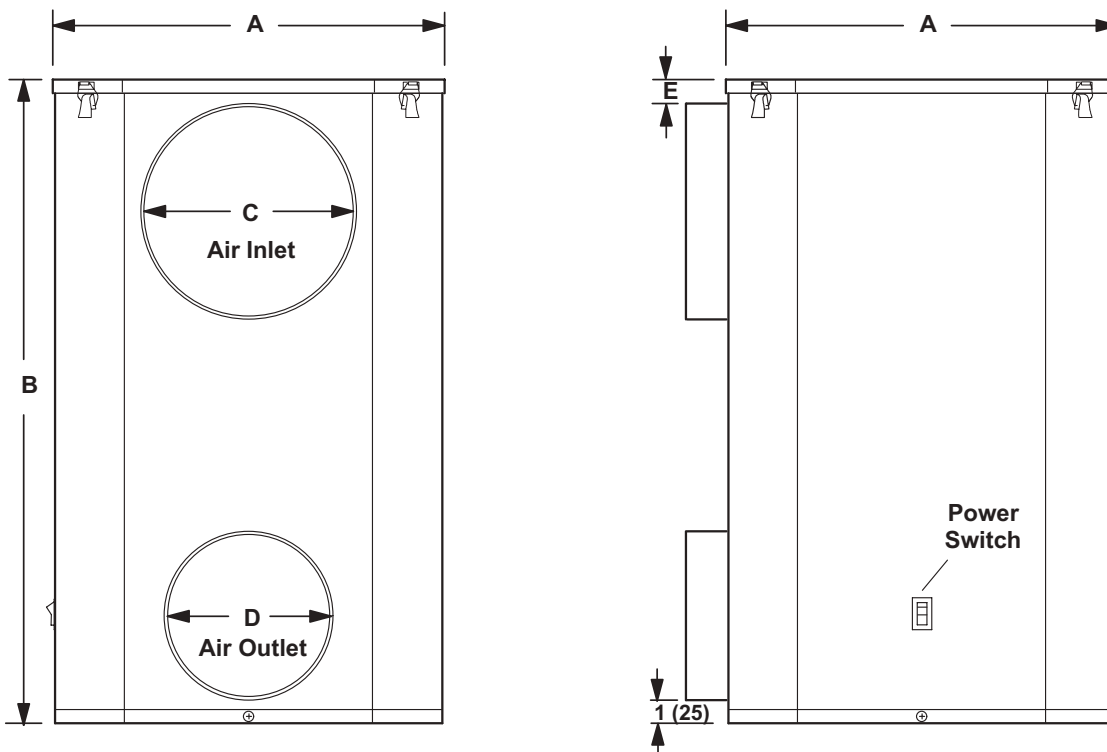
The chart is based on continuous operation of the HEPA bypass filter. If the HEPA filter is cycled, the capacity of the filter needs to be increased. For example, if the HEPA filter is ON only half the time, then the capacity of the unit needs to be doubled or additional units need to be installed.

The more air changes per hour provided, the more effective a HEPA bypass filter will be. People with sensitivities may desire a higher number of air changes per hour for cleaner air.

*Area - ft <sup>2</sup>	Volume - ft <sup>3</sup>	Model No.		
		HEPA-20	HEPA-40	HEPA-60
1000	8000	1.3	2.4	5.0
1200	9600	1.1	2	4.1
1500	12,000	0.9	1.6	3.3
1800	14,400	---	1.3	2.8
2000	16,000	---	1.2	2.5
2500	20,000	---	1	2.0
3000	24,000	---	---	1.7
3500	28,000	---	---	1.4

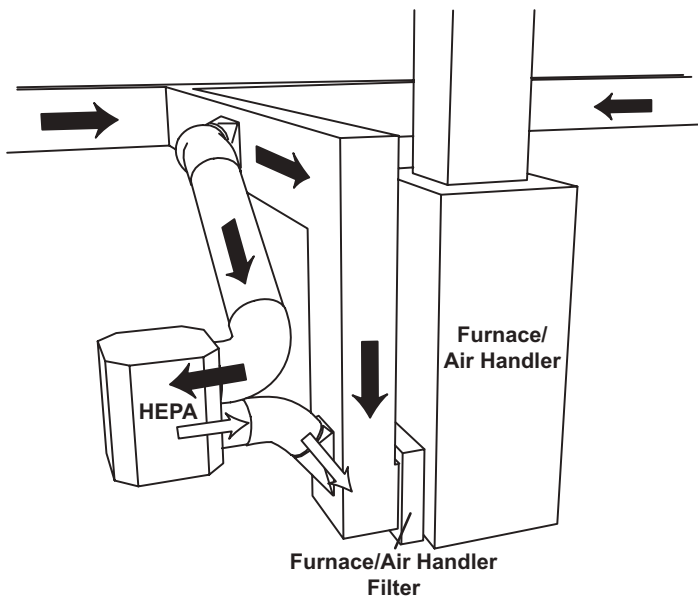
\* Chart based on homes with 8 ft. ceilings.

## DIMENSIONS

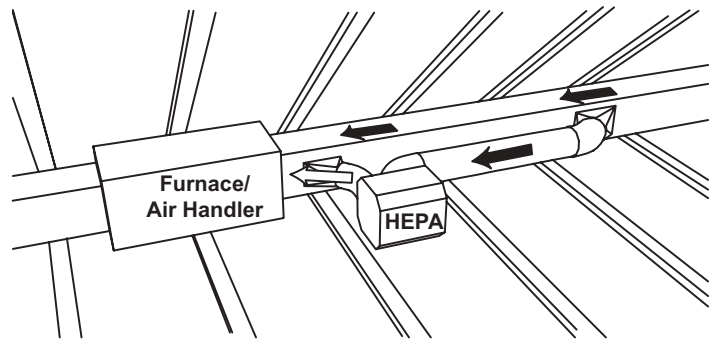


Model No.	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
HEPA-20	14	356	17-7/8	454	8	203	6	152	1	25
HEPA-40	16-1/8	410	28	711	10	254	8	203	1-3/4	44
HEPA-60										

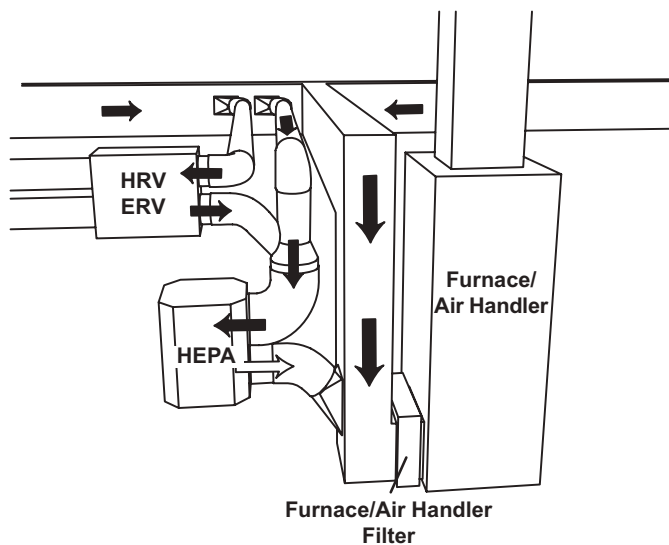
## TYPICAL APPLICATIONS



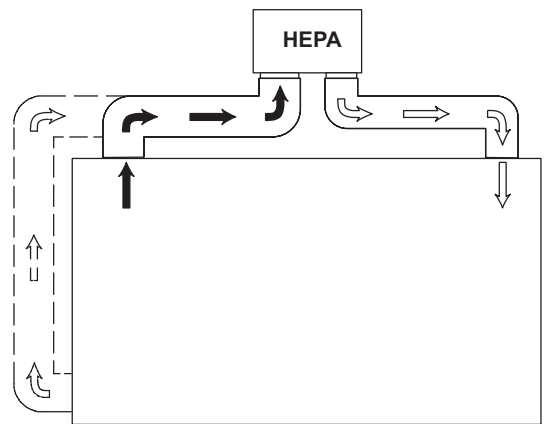
**Typical Return to Return Application**  
For homes with upflow forced air furnace or blower coil systems.



**Typical Return to Return Application**  
For homes with horizontal forced air furnace or blower coil systems.



**Return to Return Installation with an HRV/ERV**  
For homes with a forced air handler/furnace system and an HRV/ERV system.



**Independent Operation**  
The HEPA system can be used independent of any other equipment. The inlet and outlet of the system can be ducted into the same room to create a cleaner environment.





## REVISIONS

Sections	Description of Change
House Size Vs. Air Changes Per Hour	Values updated for HEPA-60.
Maintenance Items	Updated
Optional Accessory Descriptions	Updated
Specifications	Nominal Air Flow updated for HEPA-60.



Visit us at [www.Lennox.com](http://www.Lennox.com)

For the latest technical information, [www.LennoxPros.com](http://www.LennoxPros.com)

Contact us at 1-800-9-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability.  
Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury.  
Installation and service must be performed by a qualified installer and servicing agency.

©2021 Lennox Industries, Inc.