Heather Climate® HEPA Bypass Air Filtration System

Bulletin No. 210397
December 2011
Supersedes October 2010

Model Number Identification

HEPA - 20

Unit Type
HEPA = High Efficiency Particulate Air

Nominal Capacity
- 20 = 180 cfm
- 40 = 320 cfm
- 60 = 500 cfm
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

THREE-STAGE FILTRATION PROCESS
• Used to create the most effective filtration system possible
• Each filter is independent and can be changed individually

Stage 1:
• Pre-Filter - An inexpensive pre-filter to remove larger particulates from the air
• This is important to prolong the life of the HEPA filter

Stage 2:
• HEPA - 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:
• Carbon - 1/2 in. thick carbon filter for removing chemicals and odors from the air
• The Healthy Climate HEPA Bypass Filtration System also has an optional heavy duty granular carbon canister available for maximum removal of chemicals and odors
• Clean air is then expelled from the unit to be introduced into the air you breathe
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>General Data</th>
<th>Model No.</th>
<th>HEPA-20</th>
<th>HEPA-40</th>
<th>HEPA-60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Air Flow (at 120VAC and 0 in. w.g. external static pressure)</td>
<td></td>
<td>180 cfm</td>
<td>320 cfm</td>
<td>500 cfm</td>
</tr>
<tr>
<td>Electrical characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Consumption</td>
<td></td>
<td>125 watts</td>
<td>125 watts</td>
<td>225 watts</td>
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<tr>
<td>Amp Draw</td>
<td></td>
<td>1</td>
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<td>1.8</td>
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<tr>
<td>Connections - in.</td>
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<td>8</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Connections - outlet - round</td>
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<td>6</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td></td>
<td>30 - 95°F</td>
<td>30 - 95°F</td>
<td>30 - 95°F</td>
</tr>
<tr>
<td>Shipping weight - lbs. (1 package)</td>
<td></td>
<td>30</td>
<td>44</td>
<td>49</td>
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</tbody>
</table>

### MAINTENANCE ITEMS / OPTIONAL ACCESSORIES

#### FILTRATION

**Maintenance Items**

**Annual Maintenance Kit**
- Includes charcoal inner filters (4), carbon pre-filter (1) and O-ring (1)

**Charcoal Inner Filter**
- This filter captures odors and gasses, but will not change the filter's appearance
- Replace filter when it no longer seems to capture odors, or once every three months, whichever occurs first
- Estimated life: six months

**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 pre-filter when you can see the particulate build up starting to clog the pre-filter
- Estimated life: 12 months

**NOTE** - Filter items also available separately.

#### HEPA Easy Twist Filter Cartridge
- HEPA cartridge filter will darken as it captures particulates
- 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

**Carbon Canister Filter**
- Optional carbon canister filter can be used in place of the carbon pre-filter
- Coconut shell activated carbon filter

#### CONTROLS

**Optional Accessories**

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

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**SUGGESTIONS**

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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 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.

<table>
<thead>
<tr>
<th>*Area - ft²</th>
<th>Volume - ft³</th>
<th>Model No.</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>HEPA-20</td>
</tr>
<tr>
<td>1000</td>
<td>8000</td>
<td>1.3</td>
</tr>
<tr>
<td>1200</td>
<td>9600</td>
<td>1.1</td>
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<tr>
<td>1500</td>
<td>12,000</td>
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<tr>
<td>1800</td>
<td>14,400</td>
<td>- - -</td>
</tr>
<tr>
<td>2000</td>
<td>16,000</td>
<td>- - -</td>
</tr>
<tr>
<td>2500</td>
<td>20,000</td>
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<td>3000</td>
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<td>- - -</td>
</tr>
<tr>
<td>3500</td>
<td>28,000</td>
<td>- - -</td>
</tr>
</tbody>
</table>

* Chart based on homes with 8 ft. ceilings.

DIMENSIONS

<table>
<thead>
<tr>
<th>Model No.</th>
<th>A (in.)</th>
<th>A (mm)</th>
<th>B (in.)</th>
<th>B (mm)</th>
<th>C (in.)</th>
<th>C (mm)</th>
<th>D (in.)</th>
<th>D (mm)</th>
<th>E (in.)</th>
<th>E (mm)</th>
<th>F (in.)</th>
<th>F (mm)</th>
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<tbody>
<tr>
<td>HEPA-20</td>
<td>14</td>
<td>356</td>
<td>17-7/8</td>
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<td>203</td>
<td>6</td>
<td>152</td>
<td>1</td>
<td>25</td>
<td>1-1/4</td>
<td>32</td>
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<tr>
<td>HEPA-40</td>
<td>16-1/8</td>
<td>410</td>
<td>28</td>
<td>711</td>
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<td>254</td>
<td>8</td>
<td>203</td>
<td>1-3/4</td>
<td>44</td>
<td>1-7/8</td>
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<td>HEPA-60</td>
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</tbody>
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**TYPICAL APPLICATIONS**

**Typical Return to Return Application**
For homes with up-flow 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.
<table>
<thead>
<tr>
<th>Sections</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Items</td>
<td>Added Maintenance Kits.</td>
</tr>
</tbody>
</table>