



## MODEL GSEH3K

# HEPA FILTRATION & FRESH AIR VENTILATION & ENERGY RECOVERY FOR THE ENTIRE INDOOR ENVIRONMENT

The GuardianPlus™ Air System from Broan-NuTone is much more than just a standard ventilator; our system transfers both Latent and Sensible energy prior to circulating it and features whole-house HEPA\* filtration combined with a fresh air supply and patent pending technologies and manufacturing processes. Experts agree, fresh air Energy Recovery combined with HEPA filtration will ensure the greatest indoor air quality and comfort in residential spaces.

Our GuardianPlus™ Air Systems offers the following specific features and benefits:

### HEPA FILTRATION WITH FRESH AIR AND ENERGY RECOVERY

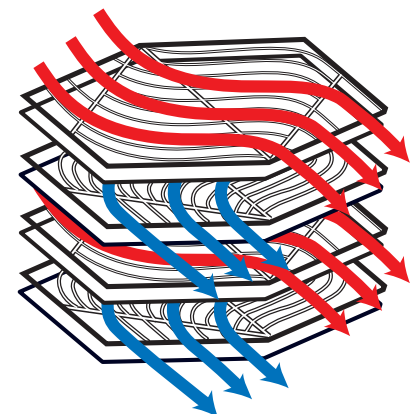
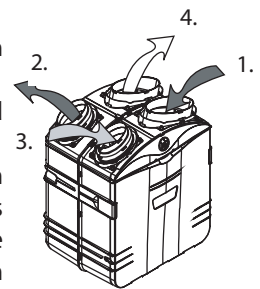
#### Control

The GSEH3K is very simple to operate: once installed, simply turn the switch (located on the front panel of the unit) to the low setting and use the wall control to select the units operation mode (Off, Low, High or Recirculation). This control is equipped with filter maintenance indicators to remind you when it is time to change the HEPA or pre-filters.



### VENTILATION AND HEPA FILTRATION

1. Stale air from the house is drawn inside the unit.
2. A portion of the stale air is exhausted outside the house.
3. Fresh air from outside is blended with interior air. Then, the airflow goes through the prefilter (catching large particles) and the HEPA filter, which catches up to 99.97% of  $\geq 0.3$  micron size particles.
4. Fresh filtered air is distributed throughout the house.



Counter Cross Flow Energy Recovery Core

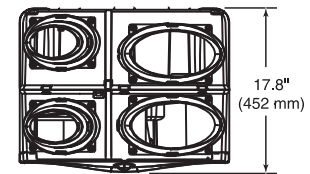
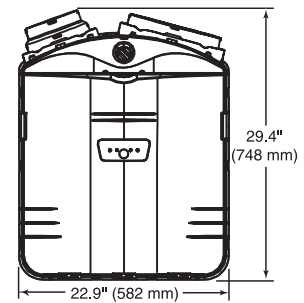
180 cfm (306 cubic meters/hr.) including 70 cfm (119 cubic meters/hr.) of air exchange to 270 cfm (459 cubic meters/hr.) including 105 cfm (178 cubic meters/hr.) of air exchange

FEATURES	BENEFITS	MODEL GSEH3K
<p>ONE ENCLOSURE</p> <p><b>Most affordable solution in the industry!</b></p>	<p>Integrated whole-house HEPA filtration with Fresh air ventilation and energy recovery in one box!</p> <ul style="list-style-type: none"> <li>Industries lowest total:               <ul style="list-style-type: none"> <li>product cost for these three functions</li> <li>installed cost for these three functions</li> <li>servicing cost for these three functions</li> </ul> </li> <li>Industries lowest operating cost:               <ul style="list-style-type: none"> <li>product requires only one blower, thereby reducing annual operating costs.</li> </ul> </li> </ul>	
<p>HEPA Filtration System</p>	<ul style="list-style-type: none"> <li>True HEPA filter with 99.97% efficiency on particles <math>\geq 0.3\mu\text{m}</math>.</li> <li>Airborne particles trapped by our HEPA filter include:               <ul style="list-style-type: none"> <li>Pet Dander</li> <li>Dust</li> <li>Pollen</li> <li>Fungal spores</li> <li>Mold Spores</li> <li>Bacterial spores</li> <li>Airborne dust mites/cockroach fecal antigens and proteins</li> </ul> </li> <li>Pre-filter with a &gt;90% efficiency on 3.0 – 10<math>\mu\text{m}</math> size particles to extend the life and performance of our HEPA filter.</li> </ul>	
<p>Energy Recovery Core</p>	<ul style="list-style-type: none"> <li>Counter cross flow enthalpy core</li> <li>Long lasting energy recovery core</li> <li>Core and it's prefilter easy to access and clean</li> </ul>	
<p>Industries first combination Air Ventilation and True HEPA Filtration unit</p>	<ul style="list-style-type: none"> <li>270 cfm (459 m<sup>3</sup>/hr) of HEPA filtered air (containing up to 105 cfm [178 m<sup>3</sup>/hr] of fresh filtered outdoor air)</li> <li>Industry first combination product.</li> </ul> <p><small>* (Based on airflow when operated in boost mode)</small></p>	
<p>Fresh Air Features</p> <p>Tandem™</p> <p>AirDuo™**</p> <p>AirChoke™**</p> <p>SoftLinkage™**</p>	<ul style="list-style-type: none"> <li>Tandem™ "Y" shaped transition provides a single home outlet; stale air is exhausted and fresh air drawn in simultaneously, without risk of contamination. The single hole in a home's exterior reduces product installation time, materials and costs</li> <li>AirDuo™**: duo-flow Air exhaust / intake outdoor hooded air vent PLUS integrated grille, featuring integral intake and exhaust filters, eliminates air cross-contamination. (Optional "pine tree spore" filter available for mild-climates with Alpine / Pine tree vegetation)</li> <li>AirChoke™**, in response to Outdoor Air Temperature, our system's AirChoke automatically attenuates air flows to increase system performance and owner comfort</li> <li>SoftLinkage™** Damper system. With a single motor we assure proper sealing of two dampers. The SoftLinkage wear resistant cable slides within a pulley to maintain even "sealing pressure" on both dampers with the use of a single damper motor.</li> <li>GuardianPlus™ Air Systems' fresh air exchange eliminates excess humidity during cold weather "heating" seasons</li> </ul>	
<p>Installation Ready</p>	<ul style="list-style-type: none"> <li>Installation kit included (ducting not included)</li> <li>Integral AirSnap™, snap-on duct ports; facilitate rapid installation and eliminates air leakage</li> <li>Lightweight enclosure with integrated carrying handles</li> <li>Unit allows for vertical or horizontal installation</li> </ul>	
<p>Designed for serviceability</p>	<ul style="list-style-type: none"> <li>Self-lubricating motor needs NO service!</li> <li>FilterGlide™** system, ensures trouble free prefilter and HEPA filter replacement</li> <li>Filters are changed in less than five minutes!</li> </ul>	
<p>Owner interface</p>	<p>Electronic, low voltage owner interface features:</p> <ul style="list-style-type: none"> <li>No high voltage wiring, no electrician required</li> <li>LED indication of the products mode of operation</li> <li>LED indication of filter alert logic to facilitate owner filter maintenance to ensure peak performance, indoor air quality, comfort and system efficiency, which extends the product motor life</li> <li>LED indication of wiring errors facilitate installation</li> <li>Remote control (no need to go to the mechanical room or attic) of the systems filtration operating modes including; normal, boost and recirculation mode</li> </ul>	
<p>Agency Approvals or Certifications</p>	<ul style="list-style-type: none"> <li>UL listed</li> <li>Certified HVI airflow</li> </ul>	
<p>Warranty</p>	<ul style="list-style-type: none"> <li>Fully protected by a 2-year warranty on all parts. <i>(See manufacturer warranty for complete details)</i></li> </ul>	

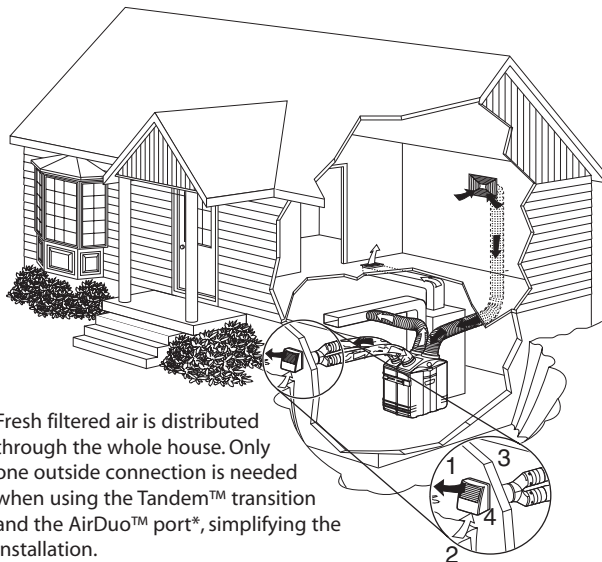
\*HEPA- High Efficiency Particulate Air  
\*\* = Patent Pending

TECHNICAL SPECIFICATIONS		MODEL GSEH3K			
	<b>Designed for (Numbers published)</b>				
Maximum Purification Area	Suitable for an entire home with as many as 6 bedrooms* <small>*Based on 15 cfm (cubic feet per minute) of fresh air per person, 2 people in the first bedroom and one in the rest, 105 cfm ventilates an entire home with up to 6 bedrooms. Local requirements may vary.</small>				
HVI Rated of air flow	105 CFM (178 m <sup>3</sup> /hr)				
Voltage (power requirements)	120 V ac				
Frequency	60 hz				
Power consumed (max)					
Low Mode	170W				
High Mode	232W				
Recirculation Mode	165W				
Dimensions Height x Length x Depth	29.4" x 22.9" x 17.8" (737mmx582mmx452mm)				
Weight	50 lbs (22.7 kg)				
Shipping weight	62 lbs (28.1 kg)				
Materials (enclosure & insulation)	ABS & EPS				
Agency compliances	UL				
<b>AIR-FLOWS (where applicable)</b>					
Fresh outdoor air intake	5" duct [12.7 cm]	95 cfm high speed with 5" ducts (161 m <sup>3</sup> /hr)			
	6" duct [15.2 cm]	65 cfm low speed with 5" ducts (110 m <sup>3</sup> /hr)			
		105 cfm high speed with 6" ducts (178 m <sup>3</sup> /hr)			
		70 cfm low speed with 6" ducts (119 m <sup>3</sup> /hr)			
Stale indoor air drawn from the space	(8" duct) [20.3 cm duct]	270 cfm high speed (459 m <sup>3</sup> /hr)			
Filter/Fresh Air distributed to the indoor space	(8" duct) [20.3 cm duct]	180 cfm low speed (306 m <sup>3</sup> /hr)			
		270 cfm high speed (459 m <sup>3</sup> /hr)			
		180 cfm low speed (306 m <sup>3</sup> /hr)			
<b>FILTER EFFICIENCY</b>					
Low mode	99.97% ≥ 0.3 micron @ 180 cfm (306 m <sup>3</sup> /hr)				
High mode	99.82% ≥ 0.3 micron @ 270 cfm (459 m <sup>3</sup> /hr)				
Recirculation mode	99.97% ≥ 0.3 micron @ 180 cfm (306 m <sup>3</sup> /hr)				
<b>UNIT EFFICIENCY (FILTRATION)</b>					
Low mode	> 87% @ 0.3 micron				
High mode	> 85% @ 0.3 micron				
Recirculation mode	> 87% @ 0.3 micron				
<b>ENERGY PERFORMANCE OF THE COUNTER CROSS FLOW ENTHALPY CORE</b>					
		<b>65 cfm</b> (5"-L sp)	<b>70 cfm</b> (6"-L sp)	<b>95 cfm</b> (5"-H sp)	<b>105 cfm</b> (6"-H sp)
<b>Heating</b> 32° F / 0°C	Apparent Sen Eff	70%	69%	69%	69%
	Latent/Moisture Eff	44%	44%	43%	46%
	Total Rec Eff	61%	61%	60%	60%
<b>Heating</b> -0° F / -17.7°C	Apparent Sen Eff	70%	69%	69%	69%
	Latent/Moisture Eff	44%	44%	43%	46%
	Total Rec Eff	63%	63%	62%	62%
<b>Cooling</b> 95° F, 35°C, 50% RH	Apparent Sen Eff	67%	67%	65%	63%
	Latent/Moisture Eff	41%	40%	35%	33%
	Total Rec Eff	50%	49%	45%	43%

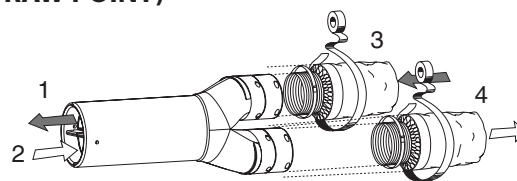
### DIMENSIONS



## INSTALLATION (TYPICAL BASEMENT, CENTRAL DRAW POINT)



Fresh filtered air is distributed through the whole house. Only one outside connection is needed when using the Tandem™ transition and the AirDuo™ port\*, simplifying the installation.



Our exclusive Tandem™ transition never mixes stale inside air (1) (coming from its unit duct (3)) and fresh air from outside (2) (going through its unit duct (4)). Both transition AirSnap™ ports can be fitted with 5" and 6" diameter insulated flexible ducts.

\*Patent pending.

Also shown is our AirDuo™ exhaust/intake air vent which mounts on the exterior of the house. AirDuo™ is paintable and UV-ray protected. The AirDuo typical cross contamination is < 3%.



## INDOOR AIR QUALITY. IT AFFECTS EVERYTHING YOU DO IN YOUR HOME.

**Growing Problem:** By its very nature, a new home is susceptible to factors that may result in poor indoor air quality. Off-gassing from new carpets, sealing agents, chemicals and other elements are part of the problem. Also, over time, dust, pet dander, mold spores, and other allergens can build up. Poor indoor air quality has even been blamed for the rise in asthma cases – those who suffer from allergies are especially at risk. A “HEPA Healthy Home™” is the best way available to combat these problems. Here’s how.

**Powerful, Effective Solution:** A GuardianPlus™ Whole-House Air System will keep the air in your entire home clean and healthy. This system eliminates the need for multiple, individual room units and is quiet and out of sight, while creating and maintaining a HEPA Healthy Home™.



**HEPA Filtration:** HEPA filters (High Efficiency Particulate Air) are among the most effective available. They capture 99.97% of all particles, even those as small as 0.3 microns (a human hair is 150 microns). They help reduce allergy symptoms, asthma, recurring colds and coughs. HEPA filters are so effective they're used in hospital operating rooms.

**Ventilation:** Proper ventilation is vital for healthy indoor air. GuardianPlus™ Air Systems ventilation models provide a constant source of fresh, filtered air to flow through your home. Ventilation exhausts harmful pollutants that can not be eliminated by filtration, such as viruses, bacteria, carbon dioxide and nitrogen dioxide. In addition, proper ventilation also controls excess humidity, which is especially important during cold seasons.

### ORDERING INFORMATION:



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