Comparative Guide on Multiple Room Air Purifiers

IQAir® MOLEKULE EnviroKlenz® Blueair

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Testing & Effectiveness of Air Purifiers

The decision to purchase an air purification device can be a difficult one for many consumers, with each purifier utilizing different technologies, filters, and materials that can influence the consumer. There are a wide variety of air purification devices currently available for consumers to select from, all ranging from different price points and different features that will contribute to the effectiveness of the machine. Amongst the top rated and selected air purification devices includes IQAir®, Blueair®, Molekule®, and EnviroKlenz®. In an effort to help inform consumers about the most important features of each air purification device we have put together a comprehensive comparative guide on the top selling multiple room air purifiers. The sections in this guide that we will focus on includes the following:

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IQAir® was developed and founded in 1963 by brothers Manfred and Klaus Hammes in Germany. Their goal was to reduce indoor air pollution in homes from coal ovens that were popular at the time. They crafted a solution in the form of a filter that attached with magnets to the oven outlets. They pursued this mission further and created the popular air purifier brand, IQAir®. Their vision today, which was collected from IQAir®'s website, states their desire to assist people in living a longer, healthier and more productive lives by helping them breathe the cleanest, healthiest air possible.

**Disclaimer: The compilation of technical information on the IQAir® was taken from the manufacturer's website and technical literature provided by IQAir®. This information was accessed on 3/6/2019.

Weight

IQAir® room purifiers range in weight depending on each specific model.

HealthPro® Series models weigh accordingly:

HealthPro® Model (29lbs)

HealthPro® Plus (35lbs)

HealthPro® Compact (26lbs).

Dimensions

IQAir® room purifiers range in size depending on each specific model.

HealthPro® and **HealthPro® Plus**:

H 28" x W 15" x D 16" (H71 x W 38 x D41 cm)

HealthPro® Compact:

H 24" x W 15" x D 16" (H 61 x W 38 x D 41 cm)

Technical Specifications

Power Requirements:

HealthPro®, HealthPro® Plus, and HealthPro® Compact:

100-120 V, 50/60 Hz

Energy Consumptions, 6 Fan Speed:

HealthPro®, HealthPro® Plus, and HealthPro® Compact:

27, 53, 92, 121, 154, 215 Watt; Standby:<1 Watt

Air Delivery, incl. Filters, 6 Fan Speed:

HealthPro®:

40, 75, 140, 180, 220, 330 cfm (70, 130, 240, 310, 370, 560 m3/h)

HealthPro® Plus:

40, 75, 130, 170, 200, 300 cfm (70, 130, 220, 290, 340, 510 m3/h)

HealthPro® Compact:

40, 75, 140, 180, 220, 330 cfm (70, 130, 240, 310, 370, 560 m3/h)

Sound Pressure/Power Level, 6 Fan Speed:

HealthPro®, HealthPro® Plus, and HealthPro® Compact:

Lp 25, 36, 44, 50, 54, 59 dB(A); Lw 35, 46, 54, 60, 64, 69 dB(A)

Total System Efficiency:

HealthPro®, HealthPro® Plus, and HealthPro® Compact:

≥ 99% for particles ≥ 0.3 microns (individually tested), ≥ 95% at ≥ 0.003 microns

Room Size

HealthPro® Plus:

1125 sq. ft.

HealthPro® and HealthPro® Compact:

1240 sq. ft.

Type of Filter Used/ Life of Filter:

HealthPro®, HealthPro® Plus, and HealthPro® Compact:

HyperHEPA® Filter H12/13 (L) (Main Particle Filter): Used for control of fine & ultra-fine particulate matter.

Media:

non-woven glass microfiber, medical-grade HyperHEPA® filter, non-offgasing separators.

Efficiency:

≥ 99.97% at ≥ 0.3 microns (EN 1822 class H12/13)

Surface Area:
53 sq. ft. (5.0 m2)

Average Filter Life:
Approx. 4 years (based on average daily usage of 10h on speed 3)

Gas & Odor Filter – V5-Cell™ Filter MG (Provided in HealthPro® Plus, Optional Upgrade in HealthPro®, Not Available in HealthPro® Compact): Used for control of a wide range of chemical contaminants and odors.

Media:
MultiGas™ granulated activated carbon & impregnated activated alumina (AC/4 + IA/4)

Weight:
5 lbs.

Average Filter Life:
Approx. 2 years (based on average daily usage of 10h on speed 3)

Technology

IQAir® utilizes both their patented V5-Cell™ Filter for advanced broad-spectrum gas and odor filtration and a HyperHEPA® Filter for capturing of fine & ultra-fine particulate matter. These filters work in combination with the systems V-shaped media chambers to increase airflow. The V5-Cell™ contains a blend of broad-spectrum gas and odor control media, along with 5 pounds of granular activated carbon that is impregnated with activated alumina and potassium permanganate for high gas and odor adsorption. The technology works against low molecular weight, such as formaldehyde and hydrogen sulfide, through the V5- Cell™ that contains chemically activated alumina, also called chemisorber. The chemisorber media works by binding the selected contaminant molecules and then chemically destroying them through an oxidation process.

Claims

These claims were taken directly from IQAir® and are according to their website and technical literature.

Only IQAir®'s patented HyperHEPA® filtration technology is able to filter ultrafines down to 0.003 microns – that's ten times smaller than a virus!

Activated carbon adsorption is the go-to method of filtration for gases as well as chemical pollutants from vehicle emissions and combustion processes.

Installation

Attaching Optional Casters: IQAir® purifiers do not come with casters attached to the system – requiring the Customer to attach them in a 6-step process. The process is as follows:

1. Turn the device upside down on a soft and clean surface.
2. Place the mounting rail on the purifier's base so that the holes (created by IQAir®) line up with the black connector pins on the base. The cut-ins should face the center of the unit.
3. Press down until the mounting rail snaps into place & repeat with second rail.
4. Place the caster onto the caster pin.
5. Press on caster, until it snaps into place & repeat steps 4 & 5 with the remaining casters.
6. Ensure that each caster is securely fitted before placing the air purifier in its upright position onto the casters.

Removing Optional Casters: After you have attached the casters to your IQAir® air purifier, if you want to remove these casters you must go through another 6-step process that includes the use of a screwdriver. The steps are as follows:

1. Switch the device off.
2. Turn the device upside down on a soft and clean area or surface.
3. Remove each caster from the rail by pulling it straight off. The caster pins will be exposed.
4. There are two slotted tabs on each rail.
5. Using a flat-head screwdriver, press firmly into the slotted tab.
6. Use the screwdriver to gently loosen and lift the rail away from the base. Lift the rail out by hand. Repeat steps 5 and 6 for the second rail.

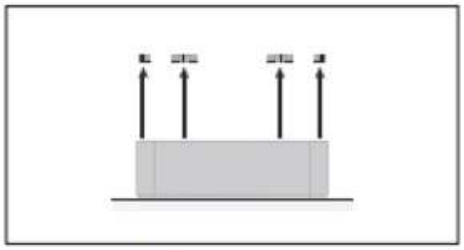
Operating the Control Panel: The IQAir® system is operated and controlled via the electronic control panel which is located at the top of the front locking arm. The control panel has several operations that can be completed via the electronic panel including:

Switching the system on and off
Controlling the fan speed and corresponding air delivery rate
Checking the remaining filter life of the individual filters
Setting the automatic timer
Resetting the Filter Life Monitor after replacing a filter
Locking the control panel to avoid tampering with the system's settings
Choosing the desired display language
Setting the day & time

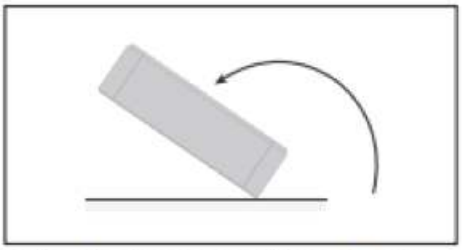
Replacing the Remote-Control Battery to the Purifier: When the battery in the remote become weak, the transmission results will deteriorate, and the battery will need to be replaced. The remote control requires on CR2025 battery – which will be replaced on the bottom compartment of the control.

Opening & Closing the Purifier Housing: The stacked housing elements are held together by two locking arms that hook into the diffuser. To open the system, you must follow the four-steps below:

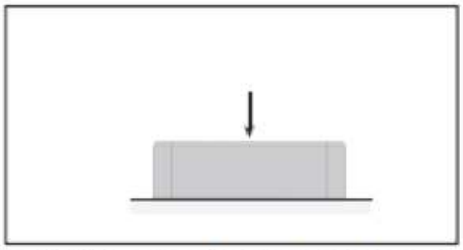
1. Disconnect the IQAir® system from the power supply before attempting to open the system.
2. Press the first locking arm outward, using both thumbs as shown. Press just hard enough to release the arm from its snap-in position in the diffuser. Disengage the other arm in the same way.
3. Pull both locking arms evenly outwards until they snap into place and remain open. Access to all filters is now possible (to change a specific filter, refer to the appropriate section below).
4. To close the housing, simply align the housing elements and push the locking arms inwards simultaneously until they snap back into the housing (top of the diffuser).



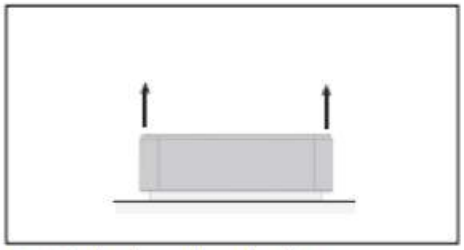
4. Remove the filter clamps that secure the filter in the frame by pulling these out of the sliding grooves.



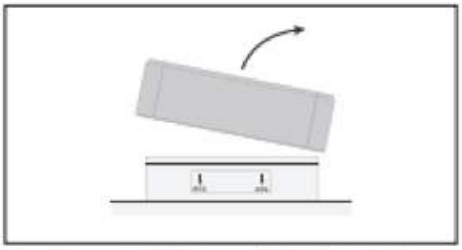
5. Turn the frame over so it is upside down.



6. With the palm of the hand, press down on the filter and loosen the frame.

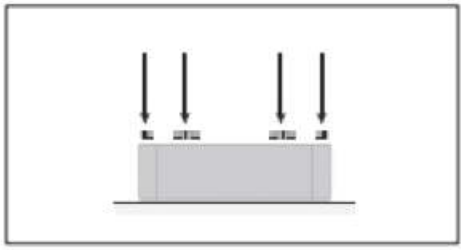


7. Lift the frame from the filter.

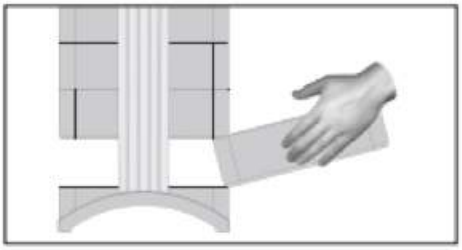


8. Dispose of the used filter by placing it into the plastic bag in which the new filter is supplied (see section 6.7).

9. Turn the frame over (right side up again) and insert the new filter. Ensure that the arrows on the filter label point upward.



10. Make sure that the filter is inserted all the way into the frame. Insert the clamps into the sliding grooves inside the frame and push them down, securing the filter into place.

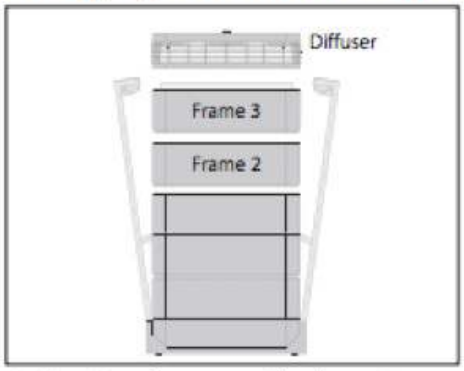


11. To reinsert frame 1, tilt it upwards at an angle while progressively pushing the frame back into the housing. For details on how to close the housing, please refer to section 6.3.

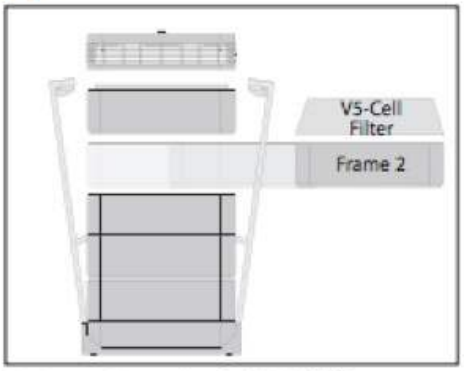
12. After a filter has been replaced, the Filter Life Monitor must be reset from the control panel (see section 4.4.8).

6.5 Replacing the V5-Cell™ Filter (F2) – HealthPro Plus Only

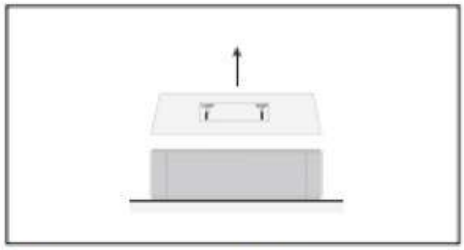
1. Open the locking arms, making sure they are fully extended outward. For details, refer to section 6.3.



2. Opening the arms will release the top housing modules. Remove the diffuser and Frame 3. Then put these aside.

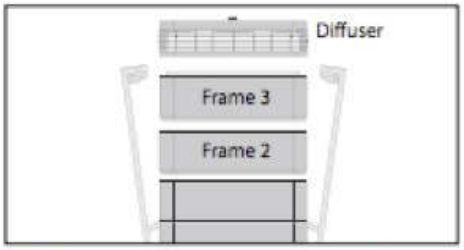


3. Frame 2 contains the V5-Cell filter.



4. Remove the used V5-Cell by lifting it out of the frame (disposal see section 6.7).

5. Insert the new filter. "TOP" indicates the filter's upright position. Ensure that "TOP" is visible when filter is installed.



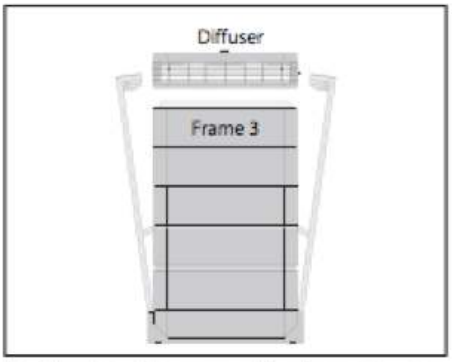
6. Put the frame back into the housing, followed by frame 3 and the diffuser. For closing refer to section 6.3.

7. After a filter has been replaced, the Filter Life Monitor must be reset from the control panel (see section 4.4.8).

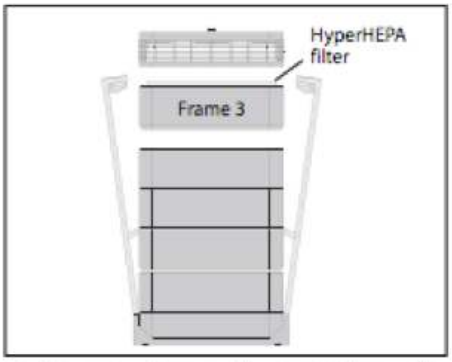
Important: Black dust from V5-Cell can stain. Wear rubber or plastic gloves and protect clothing and other surfaces while handling.

6.6 Replacing the HyperHEPA® Filter (F3)

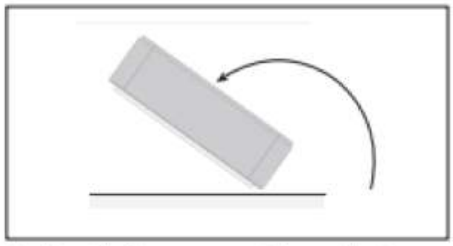
1. Open the locking arms, making sure they are fully extended outward. For details, refer to section 6.3.



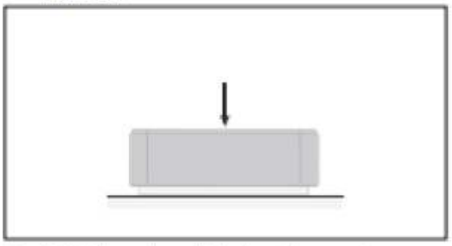
2. Opening the arms will release the top housing modules. Removing the diffuser will reveal the HyperHEPA filter inside Frame 3.



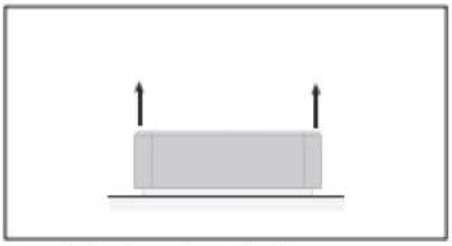
3. Remove Frame 3 containing the HyperHEPA filter.



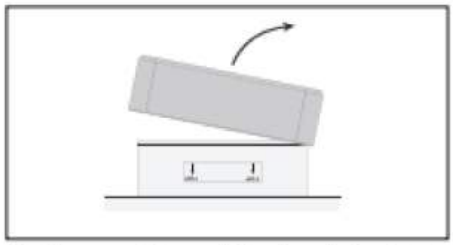
4. Turn the frame over so it is upside down.



5. With the palm of the hand, press down on the filter and loosen the frame.

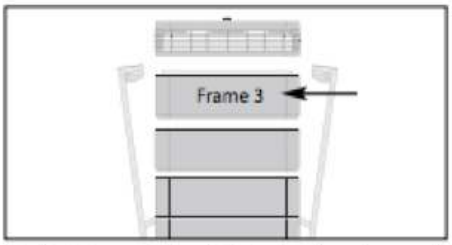


6. Lift the frame from the filter.



7. Dispose of the used filter by placing it into the plastic bag in which the new filter is supplied (see section 6.7).

8. Turn the frame over (right side up again) and insert the new filter. Ensure that the arrows on the filter label point upward. The label "this way up" should be visible when installed properly. Re-install four filter clamps.



9. Put frame 3 back into the housing and reposition the diffuser. For closing refer to section 6.3.

Warranty

IQAir® air purifiers come with a limited warranty of 5 years on parts and labor, excluding filter. To obtain this warranty, the Customer must complete and return a warranty registration card soon after purchasing or register online.

Patented/ Intellectual Portfolio

IQAir®, HealthPro® and HyperHEPA® are the registered trademarks of The IQAir® Group. V5-Cell, PreMax and EvenFlow are trademarks of The IQAir® Group. IQAir® systems and filters are protected under U.S. patents 6 001 145 and 6 159 260. Other U.S., European and Asian patents pending.

Trademarks

The various air systems evaluated are shown for reference purposes. That various register trademarks and names belong to the respective company: IQAir® - (REGISTRANT) Clinix GmbH CORPORATION SWITZERLAND

Customer Service

IQAir® provides Customer support and technical support during the warranty period. They provide a Customer service phone number and the option to visit their Support Center online where you can find answers to the most frequently asked questions (FAQs) or contact them on their contact page – where you fill out information regarding your question or issue.

Return Policy

IQAir® allows customers to return unused and unopen products within 30 days from receipt with no product restocking charges.

Products not eligible for return include: CleanZone® Series, Perfect 16®, GCX™ Series, Cleanroom™ Series, Dental Series and ParticleScans®.

Order discrepancies must be reported within 10 days of receipt.

All opened products are subject to a 15% restocking charge with no exchanges or returns accepted after 60 days.

Blue air

Over two decades ago the founders of Blue Air set out to make the world's best air purifier. They brought together a team of designers and filtration specialists who share their passion for sustainability, quality, and design. They created the Blueair® air purifier that claims to combine superior performances and low noise with timeless Scandinavian design. The vision of Blueair®, which was collected from their site, states that their belief that access to clean air for everyone is a basic right and they are committed to improving the lives of people all over the world with their air purifiers.

Disclaimer: The compilation of technical information on the Blueair® was taken from the manufacturer's website and technical literature provided by Blueair®. This information was accessed on 3/6/2019.

Weight

Blueair® air purifiers come in a variety of different models. The Blueair® Classic Models weight varies as follows:

Classic 203 Slim and Classic 205 (24 lbs.)

Dimensions

Blueair® dimensions range depending on the specific model.

Classic 205: (21 x 17 x 9 in)

Classic 203 Slim: (21 x 17 x 8 in)

Technical Specifications

Power Requirements:
Classic 205, Classic 203 Slim: 120 VAC/ 60 Hz

Energy Consumption, 3 speed fan:
Classic 205 & Classic 203 Slim: 20-60-80 W

Airflow, 3 Speed Fan:
Classic 205 & Classic 203 Slim: 75-140-220 cfm

Sound Pressure/Power Level – 3 Speed Fan:
Classic 205 & Classic 203 Slim: 32-44-56 dB(A)

Total System Efficiency:
Blueair's HEPASilent® filters capture 99.97% of particles at 0.1 micron.

Room Size

Classic 205:
Up to 279 sq. ft.

Classic 203 Slim:
Up to 240 sq. ft.

Type of Filter Used/ Life of Filter

Classic 200 Series Particle Filter (Filter Option for Classic 205 & Classic 203 Slim): A high performing filter that is optimized for the Blueair®'s HEPASilent™ technology. It was designed for maximum removal of airborne particles such as pollen, dust, pet dander, mold spores, viruses, and bacteria – down to 0.1 microns in size.

Filter Type:
Gradient structured filter with ultrasonically bonded polypropylene fiver free of chemicals and binders. Naturally anti-bacterial. Fiber shredding resistant.

Dimensions:
18 x 14 x 1.8 in

Filter Frame Material:
Paper

Recommended Filter Change:
6 months (4,380 hours)

Classic 200 Series SmokeStop™ Filter (Filter Option for Classic 205 & Classic 203 Slim): This filter was designed to absorb common gaseous pollutants like Volatile Organic Compounds (VOCs), traffic exhaust, smog, odors, smoke, and airborne chemicals through high amounts of activated carbon.

Filter Type:

Gradient structured filter with ultrasonically bonded polypropylene fibers free of chemicals and binders. Naturally ant-bacterial. Fiber shredding resistant. Activated carbon with magnesium dioxide and cooper oxide impregnation.

Dimensions:

18 x 14 x 1.8 in

Filter Frame Material:

Paper

Recommended Filter Change:

6 months (4,380 hours)

Technology

Blueair®'s HEPASilent™ technology provides a combination of electrostatic and mechanical filtration technologies. This combination, developed by Blueair®, delivers high Clean Air Delivery Rate (CADR) with whisper-silent operation and high energy efficiency. With the HEPASilent™ technology, airborne particles are charged (using ionizers) before they reach the filter, making the particles adhere to the polypropylene fibers in the filter more easily due to electrostatic forces. The technology allows the use of a less dense filter, so more air can be pushed through with less noise and energy.

Claims

These claims were taken directly from Blueair® and are according to their website and technical literature.

Blueair® claims to be one of the world's leading producers of air purification solutions for home and professional use.

Blueair® states their patented filter media uses one of the most environmentally friendly polymers available, producing only water and carbon dioxide as it decomposes.

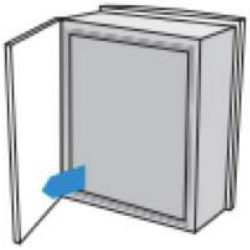
Installation

Blueair® Air Purifier Set-up: The first step is to download the Blueair® Friend Mobile App to your mobile device. Then connect your Blueair® App to the air purifier. Once the connection is made you can use your mobile device to adjust airflow speed, adjust LED intensity, initiate auto mode, and night mode.

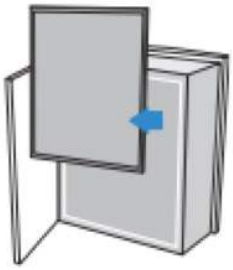
Changing the filters

IMPORTANT!
Always turn off and disconnect the unit from the supply mains before changing filters, cleaning or carrying out maintenance procedures.

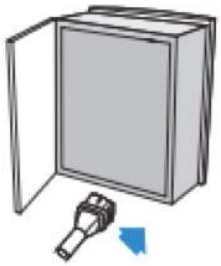
Step 1
Open the back door.



Step 2
Pull out the filter.



Step 3
Vacuum inside the unit with a soft brush attachment.



Step 4
Insert the replacement Blueair filter.

Step 5
Close the back door, plug in the unit and turn on.
The unit is now ready for use.

Status orange - replace filter and reset by pressing down for 5 seconds.

Warranty

Blueair® warrants that your Blueair® air purifier will be free from defects in material or workmanship for one (1) year from the date of purchase provided that you have replaced the filters with original Blueair® replacement filters according to the manufacturer recommended schedule listed in the Blueair® User Manual. Within the first 30 days of purchase Blueair® will replace a defective unit at no charge to you and reimburse any shipping charges. After 30 days, Blueair®'s obligation and liability under this Limited Warranty is limited to repairing or replacing (at its sole discretion) a defective unit and paying the freight cost of returning the unit to you. The Limited Warranty covers normal household use only and does not cover replacement filters.

Patents/ Intellectual Portfolio

Although Blueair® states to have patents, they were not listed on their website. After investigating, there were findings of 18 different patents as follows: D833,598; 10,099,225; D821,568; 9,919,587; 9,919,252; D798,430; D797,914; D793,543; 9,694,369; 9,381,457; D690,803; D610,859; D591,413; D591,412; D580,539; 6,790,259.

Trademarks

The various air systems evaluated are shown for reference purposes. That various registered trademarks and names belong to the respective company: Blueair® - (REGISTRANT) Blueair® AB CORPORATION, Stockholm SWEDEN

Customer Service

Blueair® provides customer support through their website where you can find FAQs, video tutorials, and resource documents (manuals). They also have customer service available by email and phone.

Return Policy

In order to return a Blueair® unit pursuant to this Limited Warranty, you should first contact Blueair® Customer Service at 888-258-3247, between 8:00AM and 5:00PM CT, Monday through Friday, or by email at INFO@Blueair.com, to request a Return Authorization Number (RA#).

You must include the RA# on the return package. Returns without an RA#, or with an unauthorized or missing RA#, will be refused by Blueair and will be returned to you at your expense.

RETURNS RECEIVED 60 DAYS OR MORE AFTER THE RA# ISSUE DATE MAY BE REFUSED AND RETURNED AT SENDER'S EXPENSE.

You are responsible for all shipping, handling, and processing costs on returned Blueair® units. Along with the RA#, when you contact Blueair® Customer Service, you will receive the location where you should send your Blueair® unit.

Returns must be shipped by verifiable tracking number (FedEx, UPS, or USPS Priority) to that location.

MOLEKULE

MoleKule air purifier was developed by Dr. Yogi Goswami, who was determined to relieve his son's debilitating asthma symptoms. He combined his expertise & research in solar energy to determine that a combination of nanotechnology & light was a revolutionary new approach to eliminating indoor air pollution. At Molekule®, they claim to have taken scientific innovation to find a solution that they felt obligated to share with as many people as possible. Their vision is to expand their technology to businesses, hospitals, airplanes, and more – effectively eliminating indoor air pollution altogether with their patented PECO technology.

Disclaimer: The compilation of technical information on the Molekule® was taken from the manufacturer's website and technical literature provided by Molekule. This information was accessed on 3/6/2019.

Weight

18 lbs.

Dimensions

23-inch Height x 8.25-inch Diameter

Technical Specifications:

Power Requirements:
(110/220V)

Energy Consumptions:
20-85 W

Sound Pressure:
Normal Mode: 42dBa
Silent Mode: 30dBa
Turbo Boost: 55dBa

Total System Efficiency:

Molekule® uses a proprietary technology called PECO (Photo Electrochemical Oxidation) to disassemble pollutants at the molecular level and convert them into nontoxic elements. The technology claims to be able to destroy pollutants 1,000 times smaller than HEPA filters (0.1 nanometers), including VOCs and viruses.

Room Size

600 sq. ft.

Type of Filter Used/ Life of Filter

The Molekule® device comes with two filters: A Pre-Filter and a Nano-Filter.

Pre-Filter: Used to capture large particles such as dust and pet hair.
Life of Filter: Replaced every 3 months.

Nano-Filter: Used to break down pollutants at a molecular level with their proprietary nanoparticle coating when activated by light.
Life of Filter: Replaced every 6 months.

Technology

The technology inside the Molekule® device is called Photo Electrochemical Oxidation (PECO) and it works at the molecular level to eliminate indoor air pollution. The process is said to work by shining light on a specially coated Nano-Filter, that creates a catalytic reaction on the surface of the filter that breaks down and destroys pollutants as they pass through the Nano-Filter. This technology is claimed to work on allergens, mold, bacteria, viruses, and airborne chemicals (VOCs). Molekule® claims that the PECO technology is capable of destroying pollutants 1000 times smaller than traditional HEPA filters (0.1 nanometers versus 300 nanometers).

Claims

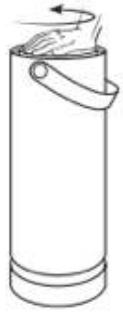
These claims were taken directly from Molekule® and are according to their website and technical literature.

Molekule® claims to have “reinvented the air purifier, so now it actually works”. Molekule states they have a revolutionary new kind of air purifier, the only one that completely destroys pollutants – leaving nothing but clean, healthy indoor air.

Installation

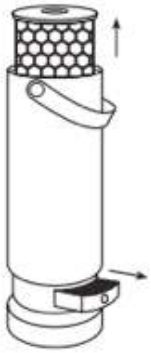
Molekule® Set-Up Process: To start, you must connect your Molekule® system with the Molekule® app via your mobile device.

Filter Replacement:



1

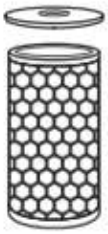
To open the device, place your hands on the top, push down the upper section, then rotate the inner lid counter clockwise.



2

Nano-Filter: Lift up the lid to pull it out from the device. Pop the lid off the old Nano-Filter.

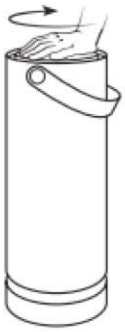
Pre-Filter: Slide the Pre-Filter drawer out from the bottom of the device.



3

To replace the Nano-Filter: Remove any packaging and attach the lid of the device to the top of your new Nano-Filter.

To replace the Pre-Filter: Remove the old Pre-Filter from its drawer and discard it. Remove any packaging from your



4

Push down the upper section of the device, then rotate the inner lid clockwise to close the device. You're all done!

5

Go to Molekule app, tap the filter status indicator to reset your filter status to 100%.

Warranty

Molekule® warrants that for a period of one year from shipment, the Product will be free from defects in materials and workmanship under normal use in accordance with the documentation provided with the Product. In the event of a defect, contact Molekule® at http://molekule.com/contact for return instructions.

Patents/ Intellectual Portfolio

 Molekule®'s technology is covered by multiple U.S. and foreign patents: 7,063,820; 7,371,351; 7,635,450.

Trademarks

The various air systems evaluated are shown for reference purposes. That various registered trademarks and names belong to the respective company: Molekule® - (REGISTRANT) MOLEKULE, INC. CORPORATION DELAWARE

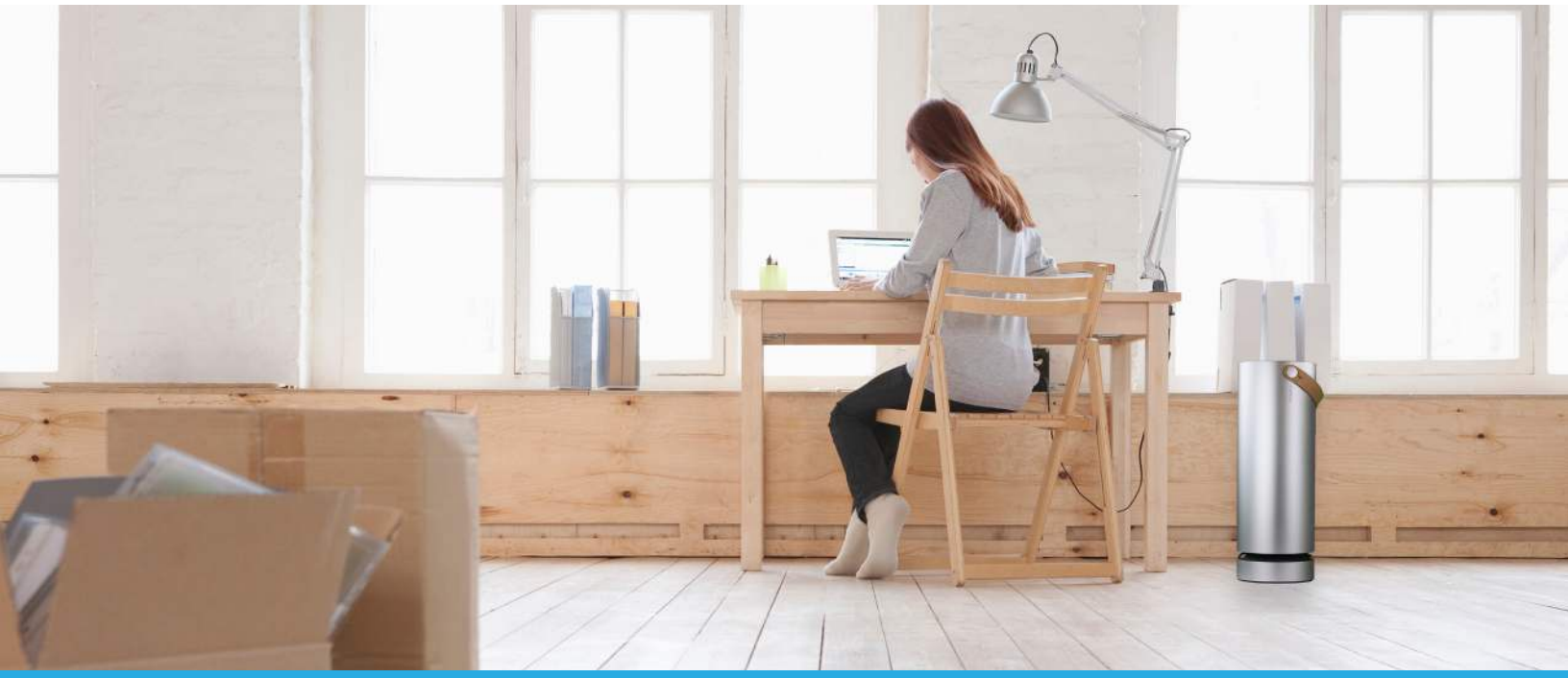
Customer Service

Molekule® offers customer service through their website where you can chat with a representative or fill out a contact form. They also have a number that Customers may call for issues or questions.

Return Policy

Molekule® offers a 60 Day Satisfaction Guaranteed Return Policy – if you are unsatisfied with your purchase from molekule.com for any reason, you have 60 days from the date of shipment to request a full refund.

Refunds will exclude shipping charges.



EnviroKlenz®

EnviroKlenz utilizes a patented technology to absorb, neutralize, and eliminate chemical pollutants coming from a broad array of sources while removing airborne particles such as dust and other debris. The patented technology is far different from already existing air purification technologies available on the market today (such as Ionizer, Ozone, PECO, and Carbon). The EnviroKlenz® technology is composed of three earth minerals (Magnesium Oxide, Zinc Oxide, and Titanium Dioxide) that work together and are processed to be highly reactive against a broad spectrum of air pollutants and contaminants and breaking down/ neutralizing these contaminants completely – with no threat of re-release back into the environment.

Weight

The weights on the EnviroKlenz® Mobile Systems range according on the specific model. The weights are as follows:

EnviroKlenz® Mobile Air System (38 lbs.)

EnviroKlenz® Mobile UV Model (50 lbs.)

Dimensions

The dimensions of the EnviroKlenz® Mobile System vary depending on the specific model. The dimensions for each system are as follows:

EnviroKlenz® Mobile Air System: Height: 19” x Width: 15” x Depth: 15”

EnviroKlenz® Mobile UV Model: Height: 22” x Width: 15.5” x Depth: 15”

Technical Specifications:

Power Requirements:
115 volts; 60 Hz; 1 amp

Energy Consumptions:
100 W

Air Delivery incl. Filter, 4- Fan Speed:
Whisper: 85 CFM

Low: 150 CFM

Medium: 200 CFM

High: 250 CFM

Sound Pressure/ Power Level, 4- Speed Fan:
Whisper: 54 dB(A)

Low: 56 dB(A)

Medium: 59 dB(A)

High: 62 dB(A)

Total System Efficiency:
Patented Earth Mineral technology designed to attack and neutralize the chemical composition of the VOC's without the use of toxic chemicals and more importantly without releasing anything back into your environment. Individually certified true HEPA filter with 80 square feet of media removes harmful dust, particulate, allergens like mold & mildew, pet dander, and more at 99.99 percent efficiency.

Room Size

Up to 1,000 sq. ft.

Type of Filter Used/ Life of Filter

The EnviroKlenz® Mobile Air System & EnviroKlenz UV Model both utilize two filters inside the system. These filters include:

First Stage Filtration (EnviroKlenz® Air Cartridge):
The filter utilizes the EnviroKlenz® patented earth mineral technology which works through a process of destructive adsorption of the chemical odors and VOCs. As the polluted air comes into contact with the technology it adsorbs, neutralizes, and breaks down the chemistry of the chemical compound.

Dimensions:
14" x 14" x 1"

Ingredients:
Magnesium Oxide, Zinc Oxide, and Titanium Dioxide.

Life of Filter:
Up to 6 months before replacement is needed.

Second Stage (Hospital-grade HEPA Filter):

Ultra-fine, fiber media that captures microscopic particles to remove at least 99.97% (9,997 out of 10,000) of particles 0.3 – micron in diameter from the air passing through the filter.

Life of Filter:

Recommended to be replaced every 2 to 3 years.

Technology

What makes the EnviroKlenz® technology special is that the benefits of the more effective chemical neutralization are derived without the concerns of harsh chemicals. The EnviroKlenz® technology adsorbs and eliminates toxic and noxious chemicals by a combination of both physical and chemisorption mechanisms. The advanced high surface area chemistry of the EnviroKlenz® neutralizing agents, in combination with the high chemical neutralizing reactivity provides superior chemical neutralization and odor elimination. When EnviroKlenz® compounds come into contact with harmful chemicals and vapors, the earth minerals' receptors capture the bad chemicals.

Claims

EnviroKlenz® has been tested and validated by some of the top leading laboratories including Battelle Memorial Institute, Edgewood Chemical Biological Command, Coal Mines Technical Services, and Organization for the Prohibition of Chemical Weapons (OPCW). Additionally, the EnviroKlenz® technology has undergone the Lloyds Register Product Verification Scheme for its ability to decontaminate airborne chemical contamination from enclosed spaces: Certificate PVS 1400001, dated June 17, 2014.

Installation

EnviroKlenz® Mobile Air System Set-up:

Step 1:

Make sure the Mobile System is unplugged and slide up the back panel to remove.

Step 2:

Slide in large HEPA Filter with airflow arrow pointing down.

Step 3:

Slide in smaller EnviroKlenz® Air Cartridge to rest on top of HEPA filter with airflow arrow facing down.

Step 4:

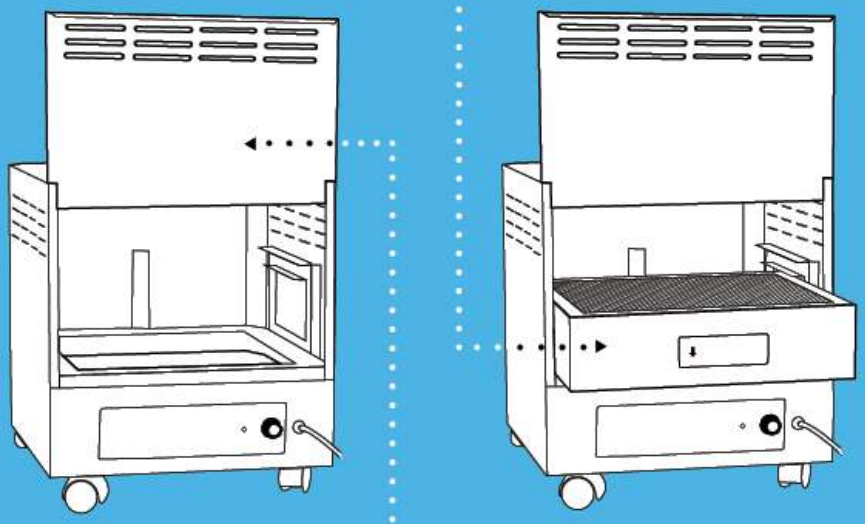
Replace sliding back panel with blank side facing out.

Step 5:

Plug electrical cord into a grounded outlet and turn power control knob to desired fan speed and begin enjoying clean, allergen, and chemical free air.

SETUP & CARTRIDGE REPLACEMENT

STEP 2: Slide in **larger HEPA Filter** with airflow arrow pointing **down**

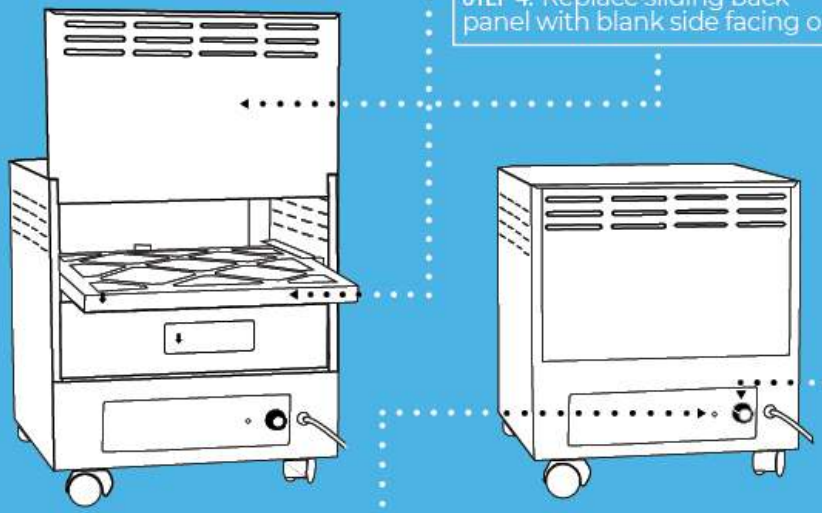


STEP 1: Make sure Mobile System is unplugged and slide up the back panel to remove

16

STEP 3: Slide in **smaller Enviroklenz® Air Cartridge** to rest on top of HEPA filter with airflow arrow facing **down**

STEP 4: Replace sliding back panel with blank side facing out



STEP 5: Plug Electrical cord into a grounded outlet (Indicator light will illuminate to show power coming to the system)

STEP 6: Turn power control knob to desired fan speed and begin enjoying clean, allergen and chemical free air

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EnviroKlenz® Mobile UV Model Set-Up:

Step 1:

Make sure the Mobile System is unplugged and remove the thumb screws and pull the panel towards you.

Step 2:

Slide in larger HEPA Filter with airflow arrow facing down.

Step 3:

Install the UV Light Bulbs by carefully pushing them into the light socket inside the cabinet.

Step 4:

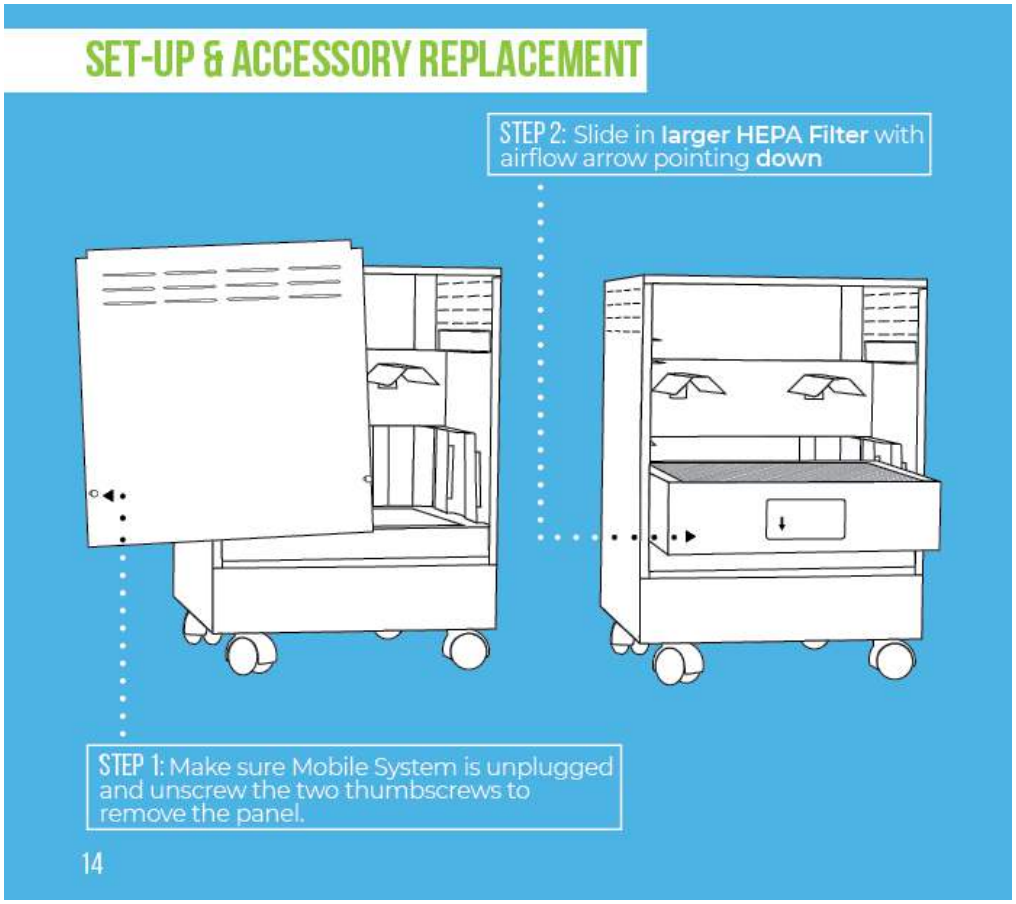
Slide in smaller EnviroKlenz® Air Cartridge directly above the UV lights into the horizontal rails slightly.

Step 5:

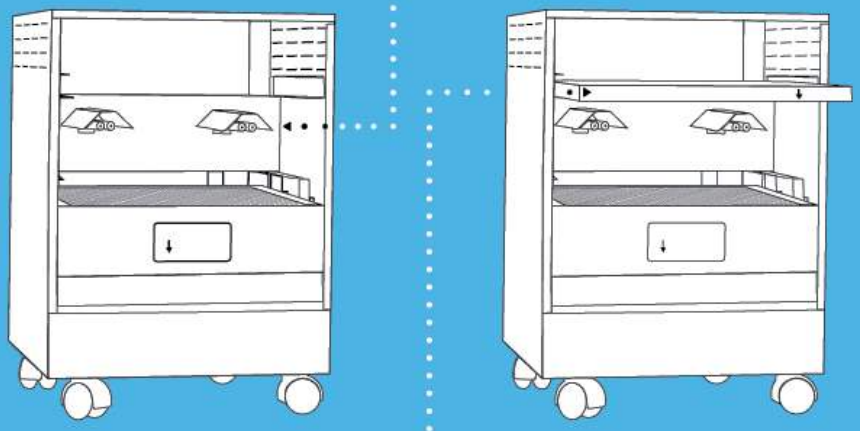
Place the back panel onto the system and secure the thumb screws into the system.

Step 6:

Plug electrical cord into a grounded outlet and turn power control knob to desired fan speed and begin enjoying clean, allergen, and chemical free air.



STEP 3: Install the **UVC light bulbs** by carefully pushing them into the light sockets inside the Mobile System



STEP 4: Slide in **smaller Enviroklenz® Air Cartridge** above the UVC lights on the rails with airflow arrow facing **down**

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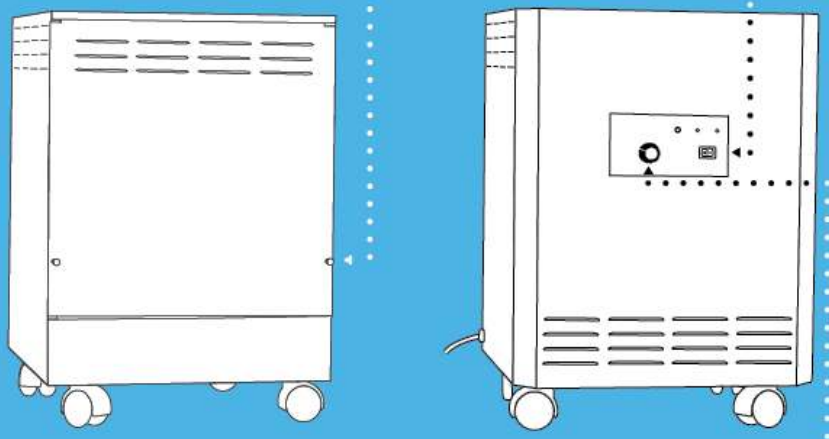
STEP 5: Replace back panels and thumbscrews. Plug Electrical cord into a grounded outlet

STEP 6: Turn on the UVC Lights



STEP 7: Turn power control knob to desired fan speed and begin enjoying clean, allergen and chemical free air

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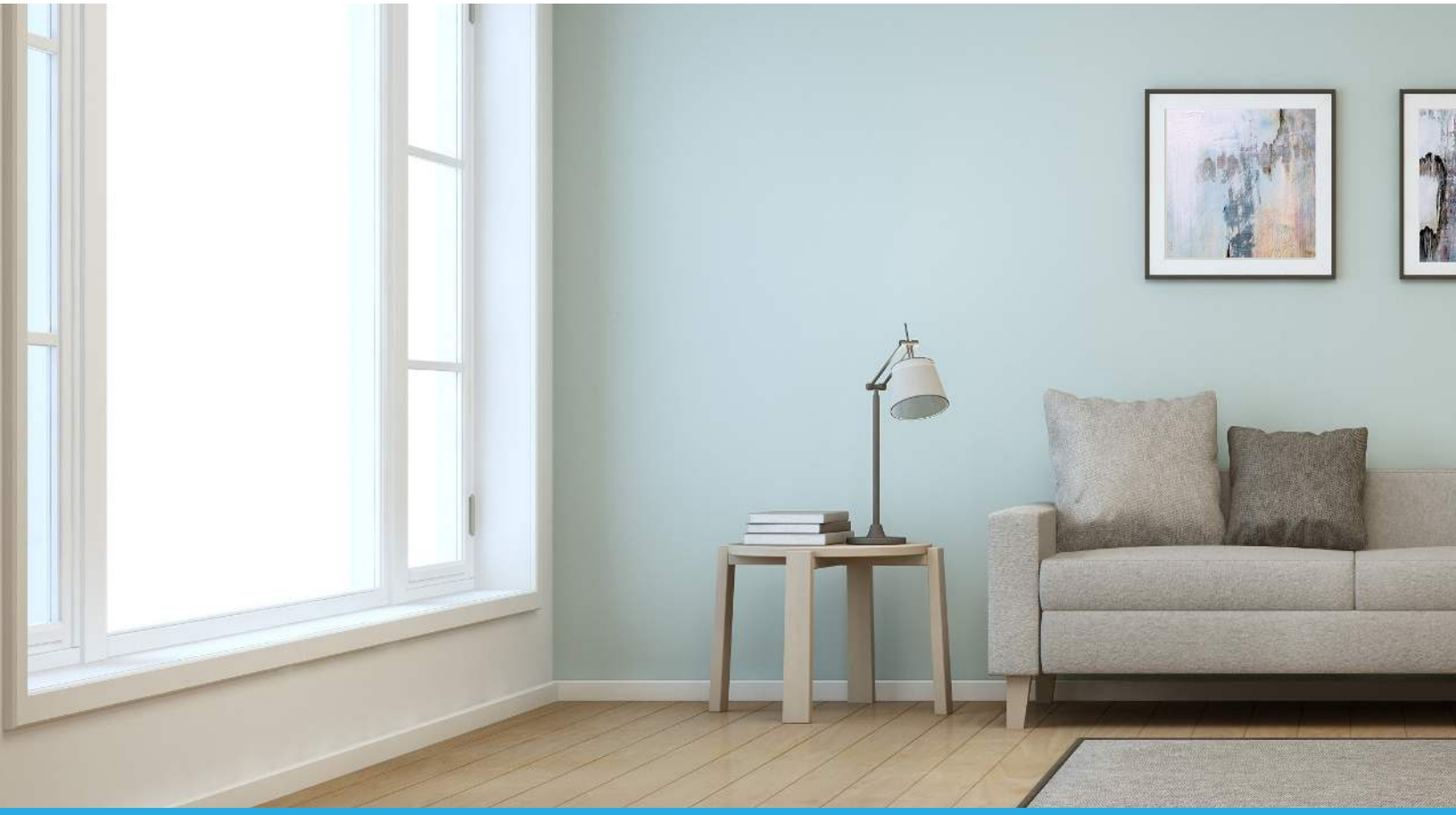
Warranty

Timilon Technology Acquisitions LLC warrants that for a period of five years from the date of purchase, this product will be free from manufacturing defects. Timilon Technology Acquisitions LLC, at its option, will repair or replace the product or any component of the product found to have manufacturing defects during the warranty period. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This warranty is non-transferable and is valid from the date of the original purchase. Proof-of-purchase is required to obtain warranty performance. This warranty does not cover consequential damages and/or damages resulting from negligent use or misuse of the product by failure to store, maintain and/or use the product in accordance with directions otherwise. In addition, disassembly, repair or modification by anyone other than Timilon Technology Acquisitions LLC, acts of God, such as fire, flood, hurricanes, and tornados will not be covered.

Patents/ Intellectual Portfolio

EnviroKlenz® is a Registered Trademark of Timilon Technology Acquisitions LLC, Fort Myers, Florida, USA. EnviroKlenz® is produced in the USA and is protected by multiple USA and International patents, including, but not limited to patent numbers 7,276,640; 7,335,808; 7,661,483; 7,956,232; and 8,038,935



Trademarks

The various air systems evaluated are shown for reference purposes. That various registered trademarks and names belong to the respective company: EnviroKlenz® - (REGISTRANT) Timilon Technology Acquisitions, LLC LIMITED LIABILITY COMPANY FLORIDA

Customer Service

EnviroKlenz® strives to form beneficial distributor relationships in an effort to reach the Customers that need the solutions that EnviroKlenz® offers. Customer support is offered to any and all Customers, with a dedicated EnviroKlenz Customer Service Team trained and available to provide exceptional and immediate support, as well as online chat representatives on the EnviroKlenz® website that are also available for Customer support.

Return Policy

In the event that you are not satisfied with your experience with EnviroKlenz®, they ask that you call the support number available to Customers or email their Customer service email address, so they can resolve any issues. In the event that they are unable to resolve the issue, they will refund you back 100% of the money on the purchase. All EnviroKlenz® Mobile Systems come with a 30-day 100% money back guarantee. * 30-day return period will begin from when order is placed in our system.

Testing & Effectiveness of Air Purifiers

The EnviroKlenz Air System, IQAir, BlueAir, MoleKule and carbon technology were evaluated against three different chemistries to show the capabilities of the systems. A corrosive gas (hydrogen sulfide), a nitrogen compound (ammonia), and a volatile organic compound were used to represent a diverse set of chemistries. In the studies chamber studies, the systems were all subjected to the same amount of gas and were monitored using an appropriate detector. The EnviroKlenz Air system was the quickest against hydrogen sulfide and ammonia, while the IQAir was the fastest against the organic chemistry.

Notes about the study and graphs.
The data was collected and recorded using data logging meters or manual transcription from the meter at given time points. The same amount of agent gas was released into the chamber in each trial for each system. The graphs use the best fit results to smooth the lines for a cleaner graphical representation.

Particulate Removal

Air can be contaminated by a range of very different particles such as dust, pollen, soot, smoke, etc. Many of these particulate matters can range in size and depending on the size it can directly impact health and lead to an array of potential health problems. Small particles less than 10 micrometers in diameter pose the greatest problems, as they can become ingested or inhaled deep into the lungs, and worst have the potential to get into the bloodstream. In an effort to clean your indoor air and remove particulate matter, finding an air purifier with HEPA filtration that contains the capability to remove fine particulate matter can be extraordinarily important. We are going to compare some of the most popular air purification devices and their ability to effectively remove particulate matter from the air.

IQAir®'s Effectiveness Against Particulate Matter:

The IQAir® utilizes the HyperHEPA filtration technology inside their air purification devices. They say the HyperHEPA provides superior airborne particulate removal in comparison to an ordinary HEPA filter. The IQAir®'s HyperHEPA filtration is tested and certified by an independent third-party lab to effectively filter harmful ultrafine pollution particles down to 0.003 microns in size. This means the HyperHEPA filter is able to filter 100 times smaller particulate matter than what is achieved with ordinary air filtration technology. Every IQAir® HealthPro air purifier is individually tested at the factory with an electronic particle counter and is certified to filter a minimum of 99.97% of all particles 0.3 microns or larger.

Blueair®'s Effectiveness Against Particulate Matter:

Blueair® utilizes the Blueair® HEPASilent™ technology inside their air purification devices. The HEPASilent technology is an ionizing technology that charges airborne particles before they reach the filter. This makes the particles adhere to the polypropylene fibers in the filter more easily due to electrostatic forces, which allows the use of a less dense filter, so more air can be pushed through with less noise and energy. The True HEPA inside the Blueair® air purifiers battles allergies, asthma, and hay fever – this is enabled by HEPASilent Technology. The HEPA captures 99.97% of airborne pollutants.

Molekule®'s Effectiveness Against Particulate Matter

Molekule® utilizes the PECO technology inside their air purification devices. The PECO technology utilizes free radicals – the same radicals used to kill cancer cells – to oxidize pollutants. PECO utilizes nanotechnology, giving it the ability to destroy pollutants 1000 times smaller than a traditional HEPA filter (0.1 nanometers versus 300 nanometers). Unlike HEPA, PECO is said to eliminate pollutants at a microscopic scale (including VOCs and viruses), making Molekule® the only product that eradicates the full spectrum of indoor air pollutants.

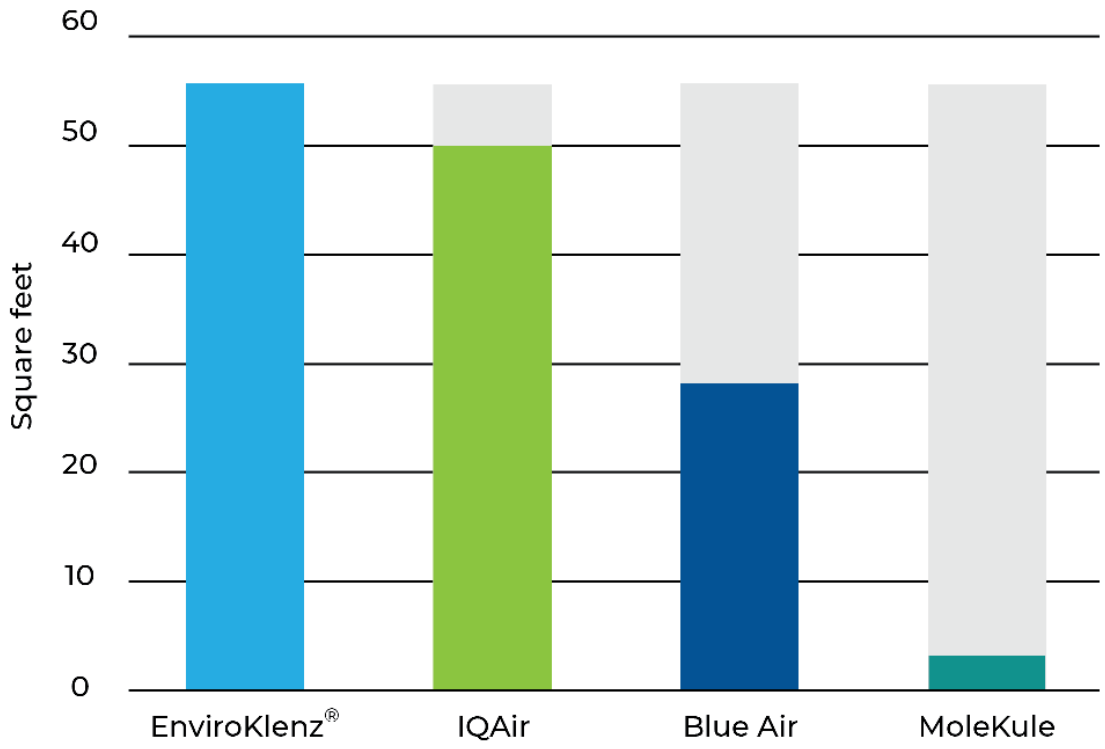
EnviroKlenz®'s Effectiveness Against Particulate Matter

EnviroKlenz® utilizes a patented earth mineral technology along with a hospital-grade HEPA filter. The EnviroKlenz® earth mineral technology contains highly effective "adsorptive neutralizers" that aid in the removal and neutralization of particulates. The technology undergoes a patented process that increases the surface area of the metal oxides, making it highly effective in chemical neutralization capabilities, adsorption of chemicals and/or fragrances, and allows it to be highly effective against many common irritants and particulate matter in the air. EnviroKlenz® also utilizes a hospital-grade HEPA filter which provides their air purifiers the ability to capture harmful dust, particulates, allergens, pet dander, microorganism, etc. The HEPA filter is fitted tightly into the EnviroKlenz® systems with no bypass around the HEPA filter, this allows every EnviroKlenz® system to perform at HEPA efficiency. The EnviroKlenz® HEPA filter is made of ultra-fine, fiber medium that captures microscopic particles, removing at least 99.97% (9,997 out of 10,000) of particles 0.3 micron in diameter from the air passing through this filter.

Square Feet of Available Particulate Filter Media

EnviroKlenz® Air System uses a HEPA filter that has more square feet of media when compared to the ones used in the IQAir® and the BlueAir®. The MoleKule® does not have a HEPA filter, so the square feet of the prefilter was used for this comparison. The prefilter, in addition to the having fewer square feet of media, is also significantly less efficient at removing particulates when compared to HEPA or better filters of the EnviroKlenz®, IQAir® and BlueAir® systems.

The EnviroKlenz® Air System has the highest amount of particulate matter filter media with over 56 square feet, IQAir® has approximately 50 square feet, Blue Air® approximately 28 square feet, and the MoleKule® particle filter has around 3 square feet of particulate filter media. The more square feet of particulate matter media results in a filter that can capture more particulate matter before needing to be changed.



VOC Removal

Volatile Organic Compounds, or VOCs, are gases that are emitted into the air from products or processes. Some VOCs are harmful and when humans are exposed to these chemicals it can spark a variety of possible health ailments. These air contaminants can be commonly found in the indoor air such as in homes, offices, and even schools, and can lead to significant pollution inside these environments. VOCs are found in many household items and materials including paint, varnishes and finishes, flooring, carpets, furniture, pesticides, air fresheners, gasoline, cosmetics, and cleaners/ disinfectants. The effects from breathing in VOCs can include irritation to the eyes, nose, and throat and even lead to difficulty breathing. Air purification devices today, try to focus on the removal of several indoor air contaminants including VOCs. We are going to compare the most popular air purification devices and their ability to effectively remove VOCs from the air.

IQAir®'s Effectiveness Against VOCs

IQAir® utilizes a filter called the V5-Cell™ Gas & Odor Filter which uses 5 pounds of granular activated carbon adsorption, as well as chemically activated alumina pellets to eliminate volatile organic compounds and other harmful compounds. This filter also includes a pelletized chemisorption filter that is said to destroy other harmful chemicals such as formaldehyde, which is a known VOC.

Blueair®'s Effectiveness Against VOCs

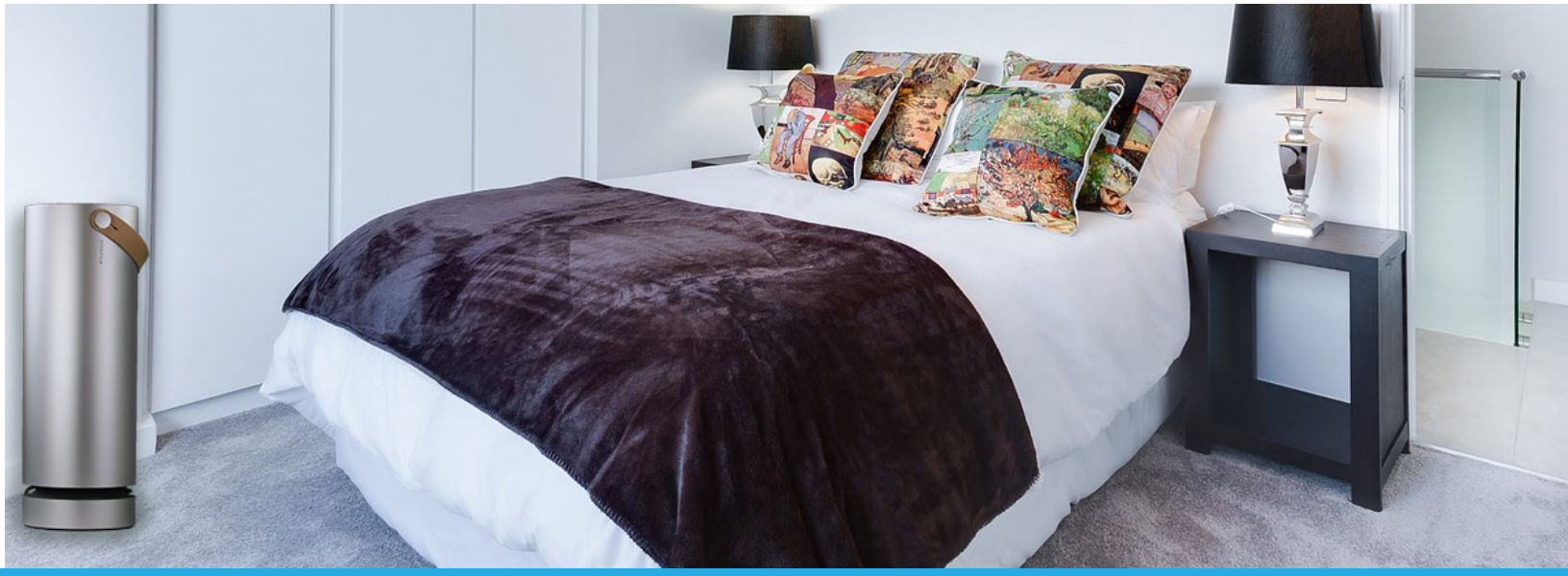
Blueair® utilizes the SmokeStop™ Filters, a filter option for any Blueair® air purifier, to remove VOCs from the air. The SmokeStop Filter absorbs common gaseous pollutants like Volatile Organic Compounds (VOCs), traffic exhaust, smog, odors, smoke, and airborne chemicals through high amounts of activated carbon. The filter is composed of a gradient structured filter with ultrasonically bonded polypropylene fibers free of chemicals and binders. A mix of activated carbon with magnesium dioxide and copper oxide impregnation is used in the filter to achieve VOC removal.

Molekule®'s Effectiveness Against VOCs

Molekule® utilizes PECO technology which is capable of eliminating pollutants at a microscopic scale – including VOCs and viruses. Independent lab results have shown that PECO destroys VOCs quickly and efficiently. VOCs are too small to be captured by even the best-in-class HEPA filter, and carbon filters re-emit these same chemicals back into the air. The PECO technology uses free radicals to oxide the pollutants – including VOCs.

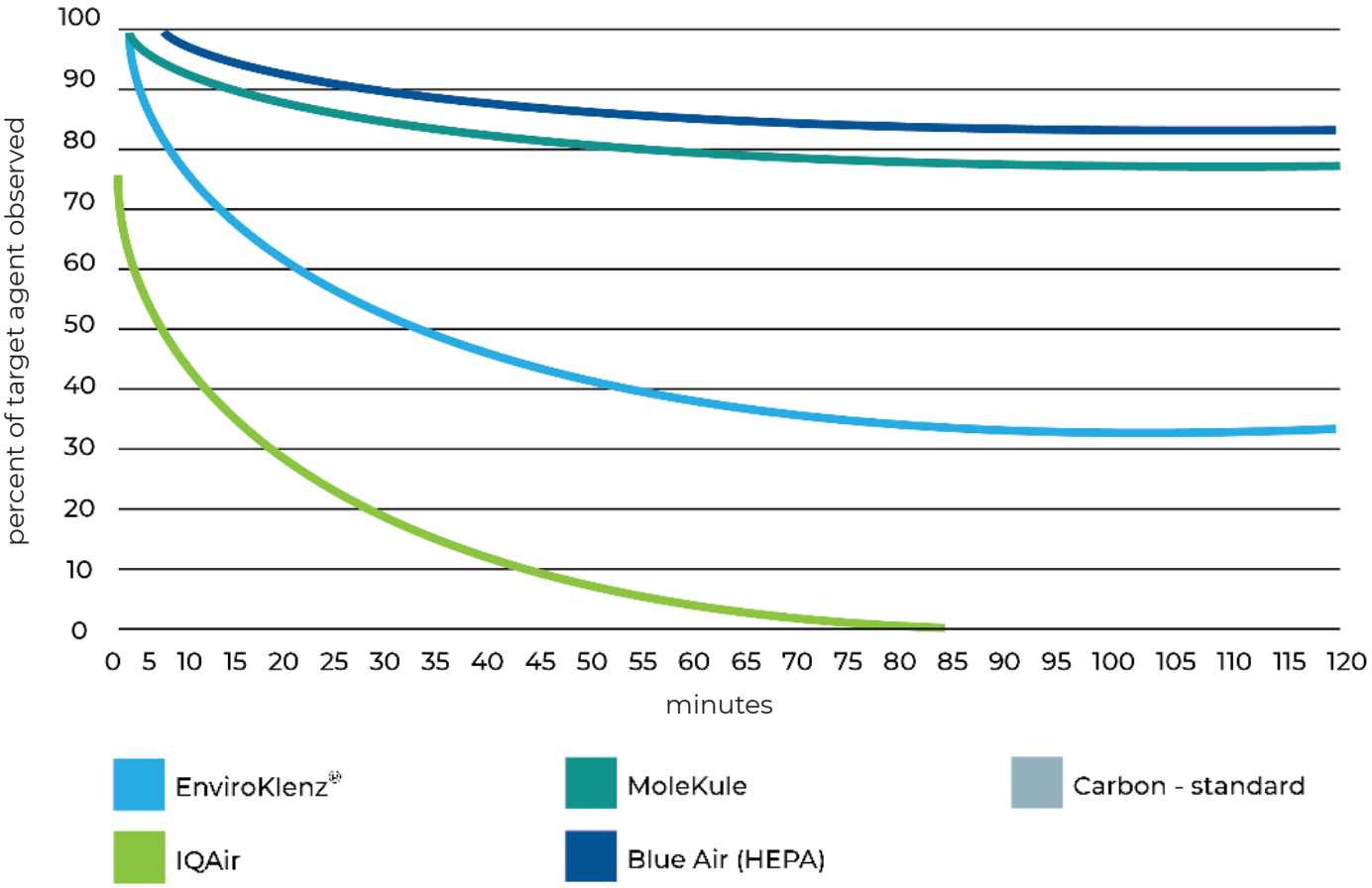
EnviroKlenz®'s Effectiveness Against VOCs

The EnviroKlenz® technology contains a proprietary blend of earth minerals (Magnesium Oxide, Zinc Oxide, and Titanium Dioxide) that work by "adsorptive neutralization" to break down and eliminate chemical odors, fragrances, and VOCs. The EnviroKlenz® multistage treatment and filtration approach (Hospital-grade HEPA filter) is enhanced with the patented EnviroKlenz® technology, it is effective for a broad spectrum of indoor environmental sensitivity triggers. EnviroKlenz®'s technology offers many advantages over the competition including the combination of chemical pollutants (such as VOCs) and particulate matter reduction.



Comparison of Air System at the Removal of Volatile Organic Compound

In this chamber study, a volatile organic chemical was released in an environmental chamber under ambient conditions. The various air systems and technologies were remotely controlled to not disturb the environment. The IQAir® was the air system that was able to remove the chemical the quickest, but since the system uses carbon media, the chemical has the potential to be released back into the atmosphere with an increase in temperature or changes to humidity and pressure. In some of our real-world evaluations, we have seen carbon systems start to desorb VOCs as the temperature rises towards only 80 degrees. The EnviroKlenz® Air System out performed the BlueAir® and MoleKule® system, while also offering more than just physical absorption. The EnviroKlenz® Air Cartridge works though a combination of physical and chemical mechanisms.



Ammonia Removal

Ammonia is one of the most widely produced chemicals in the United States. This chemical is a colorless, highly irritating gas that has a sharp suffocating odor. Ammonia is commonly used as a refrigerant gas, a purifier for water supplies, and used in the manufacturing of plastics, explosives, fabrics, pesticides, dyes, and cleaning solutions. Often, the chemical Ammonia is introduced into the home through everyday cleaning supplies used in the environment including glass and window cleaners, multipurpose cleaners, toilet bowl cleaners, shining waxes, and oven and drain cleaners. Ammonia typically enters the body as a result of inhalation, ingestion, or adsorption through skin contact and it can react with water to produce ammonium hydroxide. This chemical is very corrosive and can damage cells in the body upon contact, therefore exposure to ammonia in the air can potentially be harmful to humans. Air purification devices today, try to focus on the removal of several indoor air contaminants including Ammonia. We are going to compare the most popular air purification devices and their ability to effectively remove Ammonia from the air.

IQAir®'s Effectiveness Against Ammonia

The IQAir® GC™ MultiGas purifier combines HyperHEPA particle filtration with powerful gas and odor filtration. In addition to the HyperHEPA pre-filter in the GC MultiGas, each gas-phase cartridge is wrapped with a micro-charged post-filter sleeve that removes any additional particles released from the activated carbon adsorption and alumina pellet chemisorption media. The IQAir® gas and odor filters for GC™ MultiGas device contains 12 lbs. of granular activated carbon & impregnated alumina. IQAir® does not list their effectiveness against ammonia, so the results are ambiguous.

Blueair®'s Effectiveness Against Ammonia

The Blueair®'s SmokeStop™ filters are designed for environments with tobacco smoke, auto exhaust, chemical fumes, odors, and harmful VOCs. They utilize a coal-based carbon to trap gases and fumes and remove them from the air. They do not specifically list their effectiveness against ammonia, so the results are ambiguous.

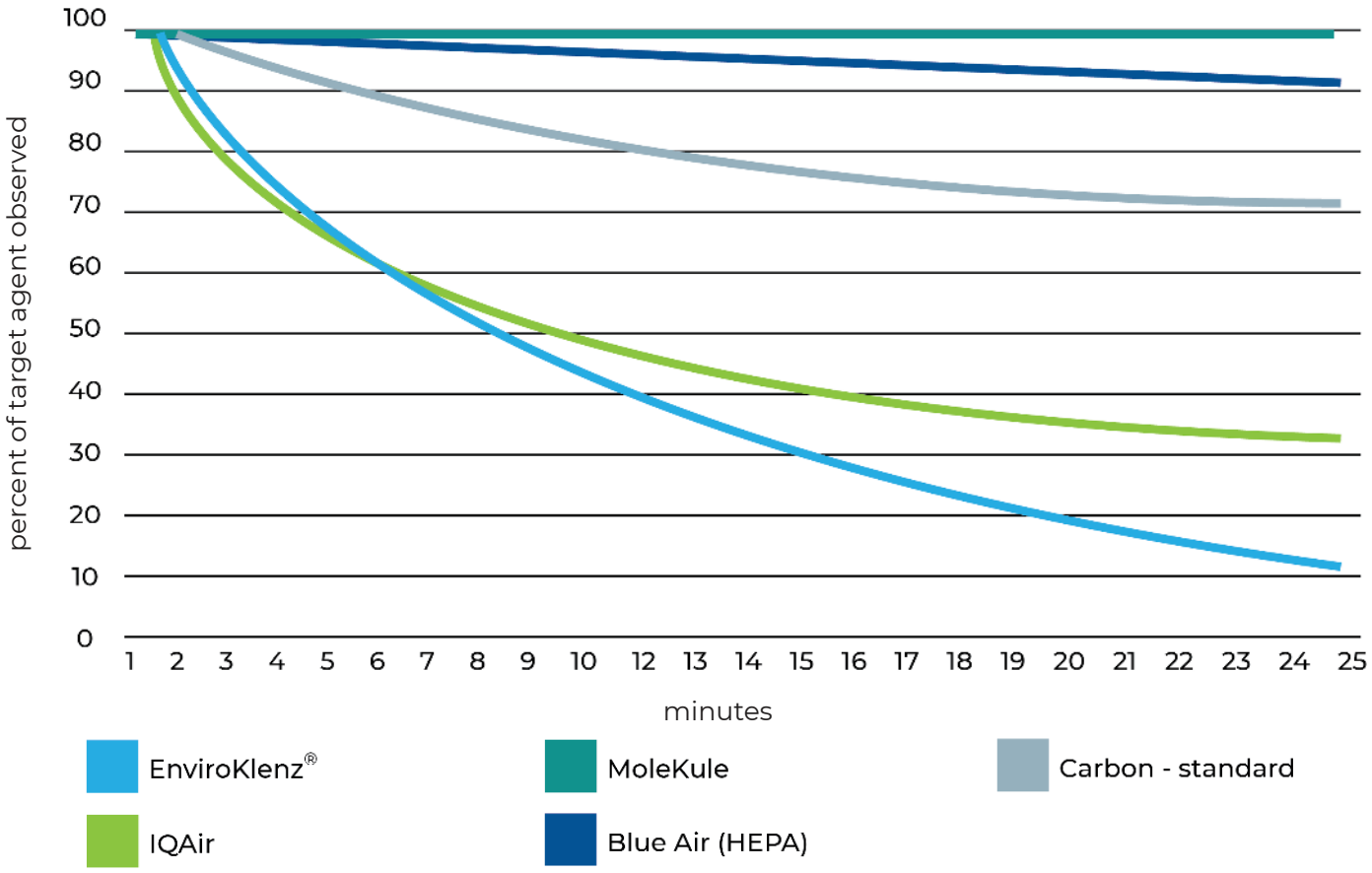
Molekule®'s Effectiveness Against Ammonia

Molekule®'s PECO technology not only filters pollutants, but is said to completely eliminate them including mold, bacteria, viruses, and volatile organic compounds (VOCs). PECO breaks them down into "safe" to breathe molecules like trace amounts of water and CO2. However, Molekule® does not specifically detail their effectiveness against ammonia, so the results are ambiguous.

EnviroKlenz®'s Effectiveness Against Ammonia

EnviroKlenz® has been tested and proven effective against a broad spectrum of hazardous chemicals and volatile organic chemicals (VOCs). When the EnviroKlenz® technology comes into contact with VOCs and other chemicals it will irreversibly adsorb and/or destroy the chemical compound Ammonia.

In this chamber study, ammonia was released in an environmental chamber under ambient conditions. The various air systems and technologies were remotely controlled to not disturb the environment. The EnviroKlenz® Air System rapidly adsorbed the ammonia gas from the air. The IQAir® system which utilizes a significant amount of an activated carbon did remove the ammonia from the air, but since carbon is not reactive, there is the potential for it to be released back to the atmosphere with changes in temperature, pressure, and or humidity levels. The bare carbon filter had minimal absorption of the ammonia. The Blue Air® purifier utilizes HEPA filtration and only some physical absorption of the ammonia on the HEPA filter media was observed. The MoleKule® system did not remove or breakdown the hydrogen sulfide in the test.



Formaldehyde Removal

Formaldehyde is an important chemical used widely by industry to manufacture building materials and numerous household products. This chemical can commonly be found within the air in a home, with the highest levels of airborne formaldehyde detected in indoor air – it can be released from various consumer products in the home like building materials and furniture. Exposure to formaldehyde can lead to either acute or chronic exposure. Symptoms including respiratory issues, eye, nose, and throat irritation can all be a result of formaldehyde exposure. We are going to compare the most popular air purification devices and their ability to effectively remove formaldehyde from the air.

IQAir®'s Effectiveness Against Formaldehyde

IQAir®'s air purifiers can dramatically reduce harmful gases and vapors from the air. They feature high-quality carbon from bituminous coal to fight odors, remove gases, and eliminate VOCs. The IQAir GC™ MultiGas was designed with a 14,000 mg formaldehyde CCM value, 9 times higher than China's national F4 level. IQAir® filters last, on average, for 12 to 24 months, in comparison to other formaldehyde air purifiers that require filter replacements every 6 months. However, there was no specific test to prove their effectiveness against formaldehyde.

Blueair®'s Effectiveness Against Formaldehyde

Blueair® offers the Pro SmokeStop™ Filter for use in all three models. This filter is utilized to get rid of gaseous pollutants like Volatile Organic Compounds (VOCs, such as formaldehyde), and tobacco smoke. The filter uses activated carbon to break down the VOCs that come into contact with the filter. However, there was no specific test to prove their effectiveness against formaldehyde.

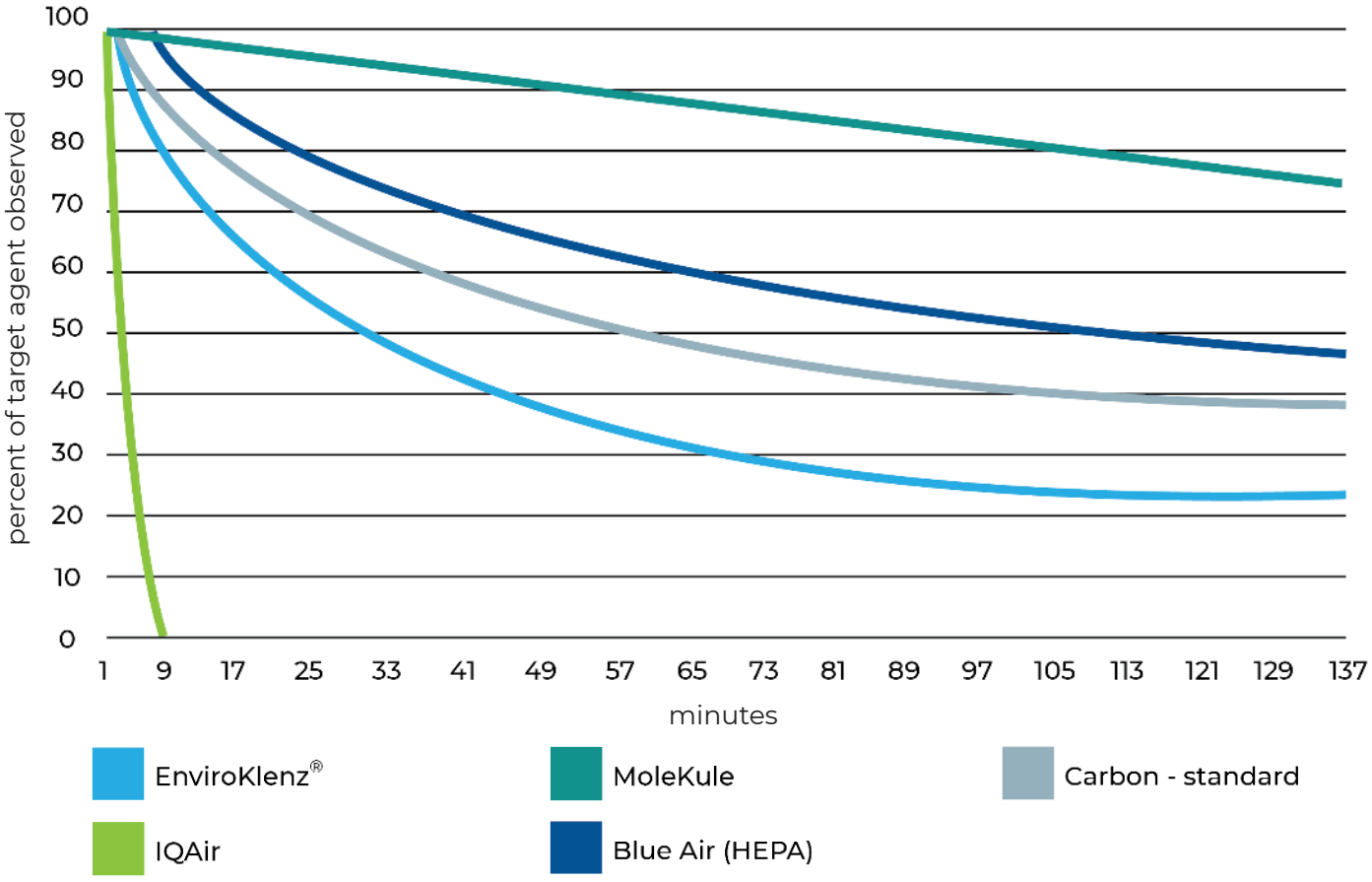
Molekule®'s Effectiveness Against Formaldehyde

Molekule® has had 3rd party testing completed to challenge their claims of being effective against formaldehyde and other common VOCs. The PECO technology was therefore tested to find the results. A mixture of VOCs including Formaldehyde, Toluene, & D-limonene were injected into a space and given two hours to circulate. They placed a Molekule® inside the area and found that the PECO filter was able to reduce the VOC concentration within hours.

EnviroKlenz®'s Effectiveness Against Formaldehyde

The EnviroKlenz® technology is effective against a broad spectrum of indoor air contaminants including noxious odors, chemical odors, and a plethora of VOCs. A common VOC that is found in many indoor environments, formaldehyde, can be broken down and neutralized by the EnviroKlenz® technology. In a test conducted, formaldehyde was released into an environmental chamber and the VOC level was equilibrated around 100 ppm. The EnviroKlenz® Mobile Air System was turned on to rapidly remove the formaldehyde and once the contaminate was inside the proprietary EnviroKlenz® Air Cartridge, an adsorptive neutralize process occurred. It was found that the EnviroKlenz® Mobile Air System has the capacity and capabilities to make a significant impact on living spaces that contain formaldehyde pollution.

In the study against formaldehyde, the IQAir® was able to reduce the compound the fastest from the chamber due to having a much higher loading of media. The MoleKule® did not have much impact on the formaldehyde in this study. The BlueAir® HEPA media and bare carbon filter did show some physical absorption of formaldehyde, but physical absorption is very prone to releasing whatever it may have absorbed over time since there is no chemical interaction. The EnviroKlenz® Air System does actively react with the formaldehyde through adsorption and polymerization on the oxide surface of the EnviroKlenz® media.



H_2S Removal

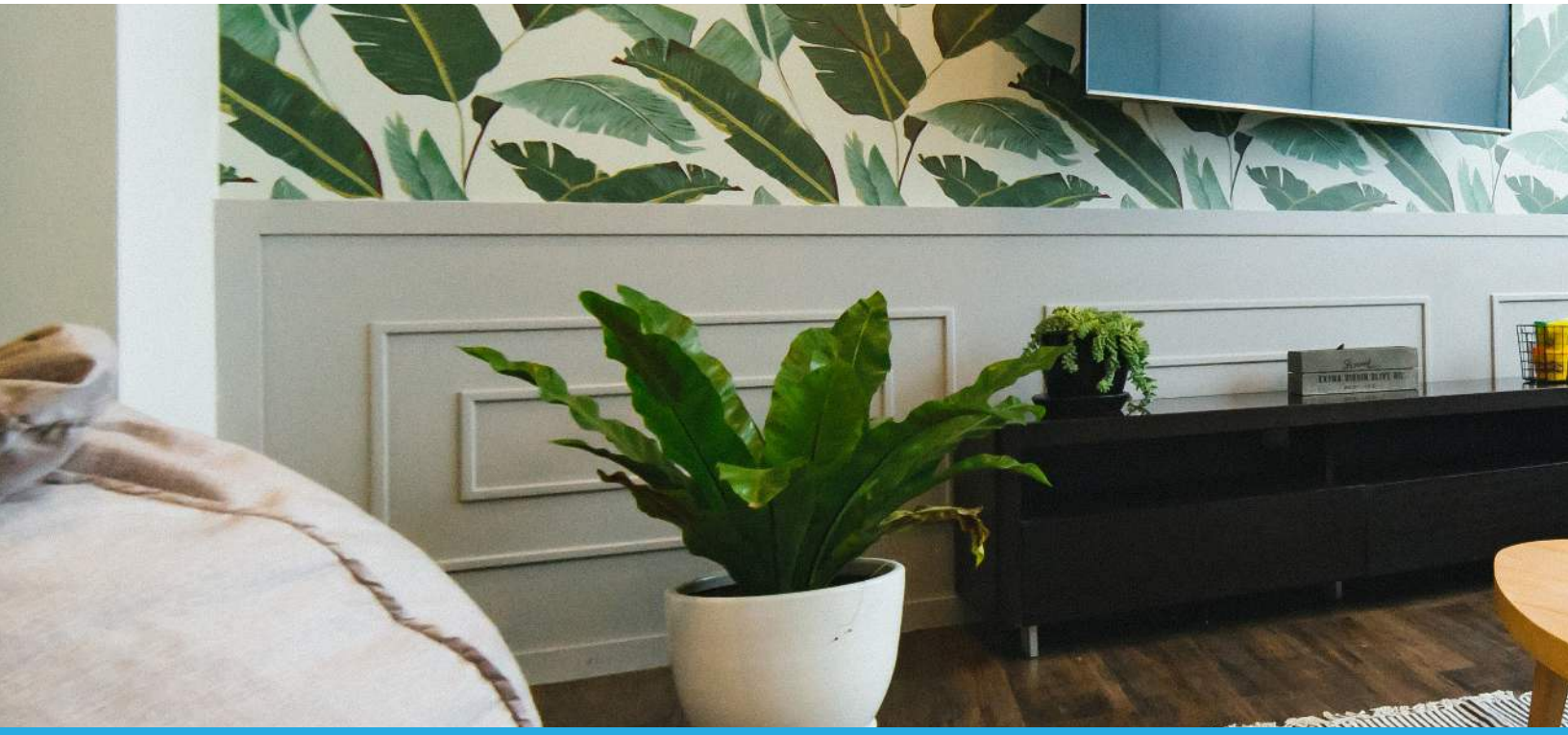
Hydrogen sulfide is a colorless, flammable hazardous gas with a rotten egg smell. This chemical is heavier than air and travels along the ground. Typically, hydrogen sulfide collects in low-lying, poorly-ventilated areas such as basements. Hydrogen sulfide has been known as an irritant that can affect both oxygen utilization and the central nervous system. Its health effects can vary depending on the level and duration of exposure. Low concentrations can irritate the eyes, nose, throat, and respiratory system. Whereas high concentrations of hydrogen sulfide can cause shock, convulsions, inability to breathe, extremely rapid unconsciousness, coma, and even death. We are going to compare the most popular air purification devices and their ability to effectively remove hydrogen sulfide from the air.

IQAir®'s Effectiveness Against H_2S

IQAir® offers four unique gas-phase cartridge configurations, the IQAir® GC Series is able to utilize these four specialized gas-phase media configurations. The GC ChemiSorber is used for control of formaldehyde, hydrogen sulfide, and sulfur dioxide. The superior activated carbon media in the IQAir®'s GCX Series is blended with chemisorbers that target airborne volatile organic compounds, including Hydrogen Sulfide. This works with pelletized aluminum oxide, impregnated with potassium permanganate.

Blueair®'s Effectiveness Against H_2S

The Blueair® filter is an ultra-thin polypropylene fiber of different sizes and layers that are interwoven to lock in particles. The particles become charged and adhere to the fivers in the filter more easily. The Blueair® underwent a deodorization performance test in 2010 by the Kitasato Research Center of Environmental Sciences. The test findings are below.



Molekule®'s Effectiveness Against H_2S

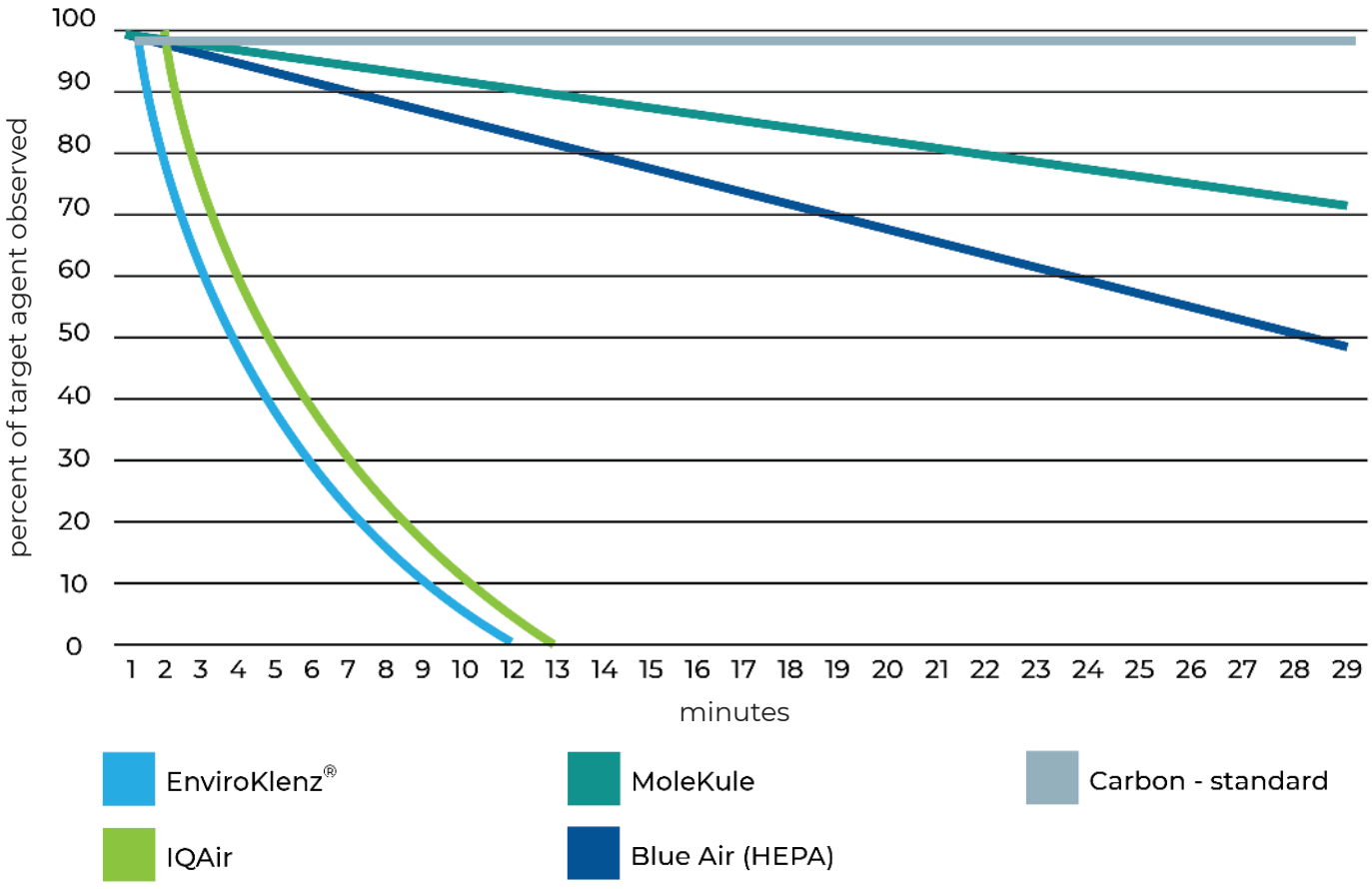
Molekule® did not provide any substantial information on their effectiveness against Hydrogen Sulfide. Molekule® does provides tested research on the effectiveness of the PECO technology of Molekule®'s Home One (MH1) device in destroying VOCs. The test found the PECO-filter was able to reduce the concentrations of all VOCs below quantification levels within a few hours. The results show that PECO technology is able to destroy VOCs without re-release, unlike any other technology available.

EnviroKlenz®'s Effectiveness Against H_2S

The EnviroKlenz® technology has been tested and proven effective against a broad spectrum of hazardous chemicals and Volatile Organic Chemicals (VOCs). A test was conducted to see the reduction of a chemical compound (hydrogen sulfide) in an environmental chamber over a period of two hours by an EnviroKlenz® System, Carbon Filtration (with HEPA), and an Ozone Machine. The test showed the carbon filter and ozone machine were not as fast or as effective as EnviroKlenz® which was able to reduce H_2S to 0 ppm in less than 20 minutes.

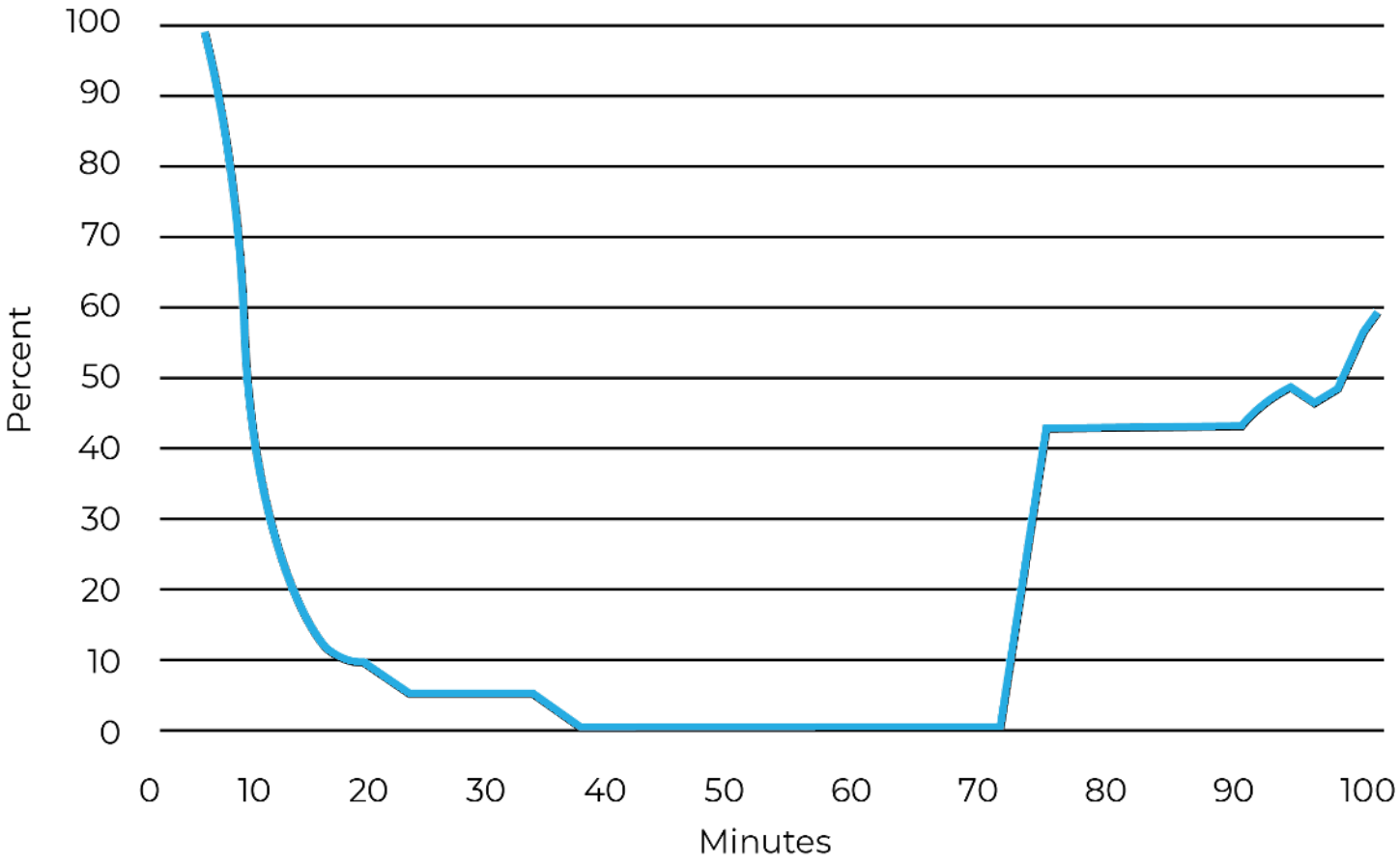
In this chamber study, hydrogen sulfide was released in an environmental chamber under ambient conditions. The various air systems and technologies were remotely controlled to not disturb the environment. The EnviroKlenz® Air System rapidly reduced and neutralized the acidic gas from the air. The IQAir® system which utilizes a significant amount of an activated carbon did remove the H_2S from the air, but since carbon is not reactive, there is the potential for the hydrogen sulfide to be released back to the atmosphere with changes in temperature, pressure, and or humidity levels. The BlueAir® purifier utilizes HEPA filtration and only some physical absorption of the acid gas on the HEPA filter was observed. The MoleKule system did not rapidly remove the hydrogen sulfide and a bare carbon filter did not absorb or adsorb the acid gas.

The IQAir® uses a carbon filter that contains well over 5 pounds of media. The EnviroKlenz® Air Cartridge is able to achieve the same results with less than ½ pound of media!



Limitations from Carbon

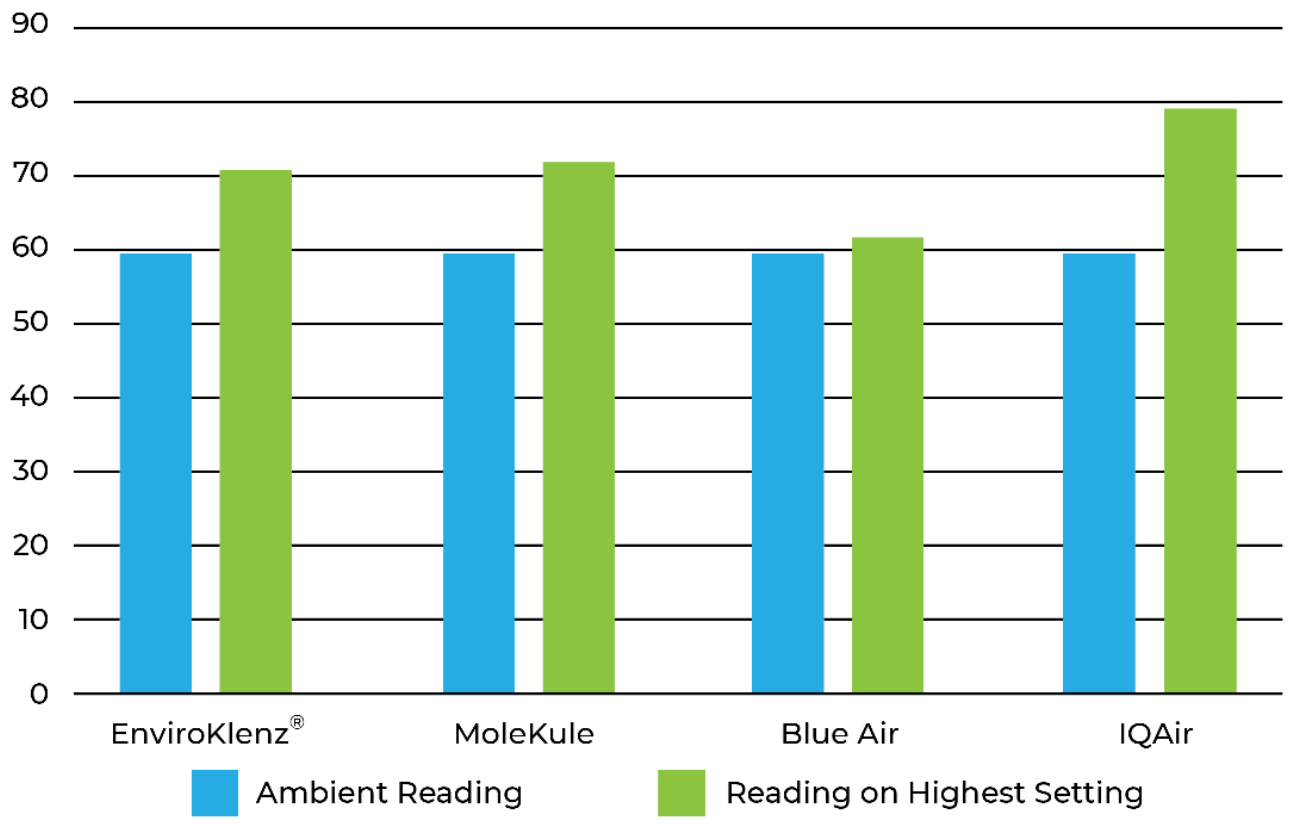
In the air chamber studies, our analysts determined and utilized speeds and setting on each system that would process a comparable volume of air. For the individual runs, the system was placed inside of the environmental chamber and was controlled from the exterior as to not disturb the environment once the experiment was underway. Ambient indoor air conditions were used. The chemical agent was released in the chamber to the target ppm level for the experiment set. The gas was allowed stabilize at the target ppm and then the system was remotely turned on. The chemical agent ppm level was monitored using an appropriate detection monitor. The readings were either manually recorded at predetermine time intervals or using a data logger if it was built into the monitor system. At the end of the experiment, the system was turned off and the chamber was evacuated if needed for the analyst to access the monitor and system. The data was analyzed and plotted as a percent of starting agent ppm versus time.



Noise

Testing was conducted in a quiet room 30' (L) x 12' (W) with 9' (H) ceiling height. Ambient room reading was taken from the center of the room. The air systems were located along the center of the 12-foot measurement dividing the room in half along the width and 10 feet from the back wall. This spacing allow for 1- and 2-meter measurements from the unit along the length of the room.

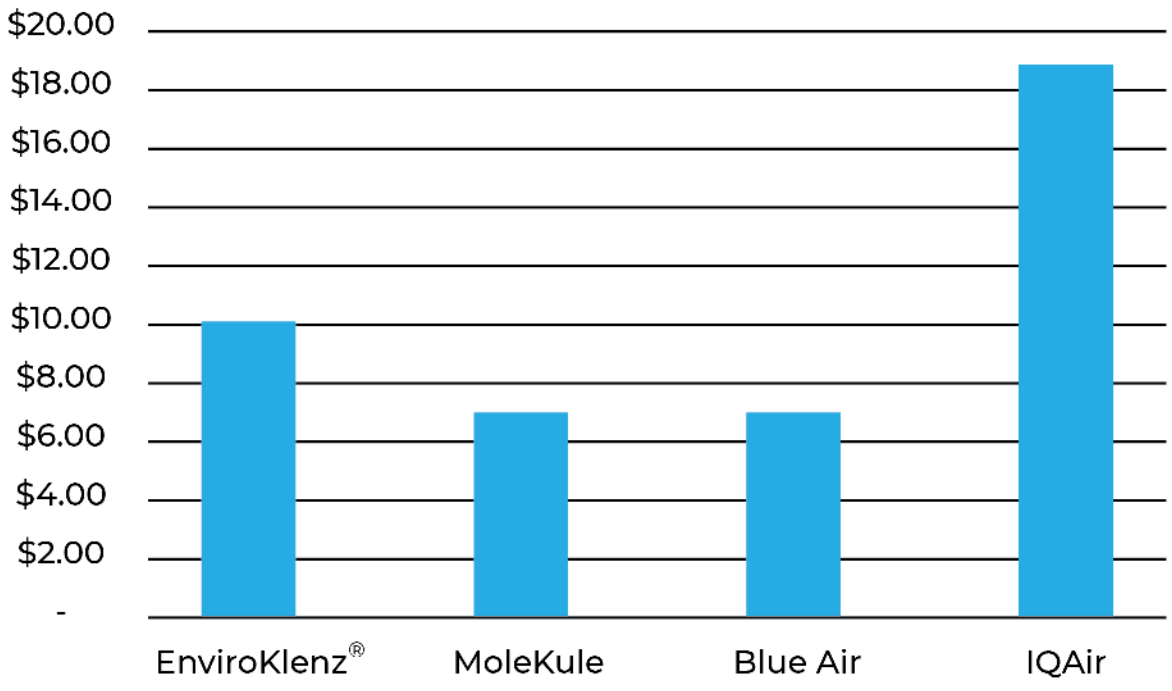
SYSTEM	DECIBELS		
		DISTANCE	
	AMBIENT	2 METERS	1 METER
EnviroKlenz®	60	60, 62, 68, 71	60, 62, 70, 72
MoleKule	60	60, 61, 72	61, 63, 73
Blue Air	60	60, 61, 62	61, 62, 63
IQAir	60	60, 60, 60, 62, 65, 71	60, 61, 61, 63, 66, 79
Note: reading from lowest to highest setting			



Cost to Operate

Cost to operate based on continuous use, 0.12 kw/h, and system run on highest setting.

SYSTEM	COST TO OPERATE @ 24H/365			
	0.12 KW/H		PER MONTH	
	LOWEST SETTING	HIGHEST SETTING		
EnviroKlenz®	120.89	120.89	$10.07	115 watts
MoleKule	21.02	84.1	$7.01	20-80 watts
Blue Air	21.02	84.1	$7.01	20-80 watts
IQAir	28.38	226.01	$18.83	27-215 watts
Note: Month Estimate Based on High Setting				



Cost to operat based on continuous use, .12 kw/h, and system run on highest setting

SYSTEMS	STRENGTHS	WEAKNESSES
IQAir®	• Hyper HEPA, system can get smaller particles than traditional HEPAs • Largest treatment square footage (per manufacture claims) • Best initially against hydrocarbons (but off-gassing was observed in testing)	• Largest/bulky system (height/space taken up) • Most complicated steps to set-up (set-up time) • Most expensive to operate • Loudest on high setting • Uses Carbon – desorption of chemicals observed during chemical testing
Blueair®	• Offers a range of options and sizes • Slim profile • Low cost to operate	• Base unit did not perform well in chemical testing (second least effective) • Of the 3 units with HEPA filters (or better), it had the least amount of square feet of particulate matter filter media
Molekule®	• Low operational costs • App enabled • Small compact size • Fairly quiet on lowest settings	• Lease effective in the aggregate chemical testing • Surprisingly loud on the highest setting • No HEPA or high efficiency particulate filter (works differently for particles) • Can be easily knocked over
EnviroKlenz®	• Highest amount of particulate media surface area (most particulate matter capacity) • Shortest/ easiest setup • Best against acid gases • Best against ammonia • Second best against hydrocarbons • No desorption	• Middle of the road operation costs

Contact

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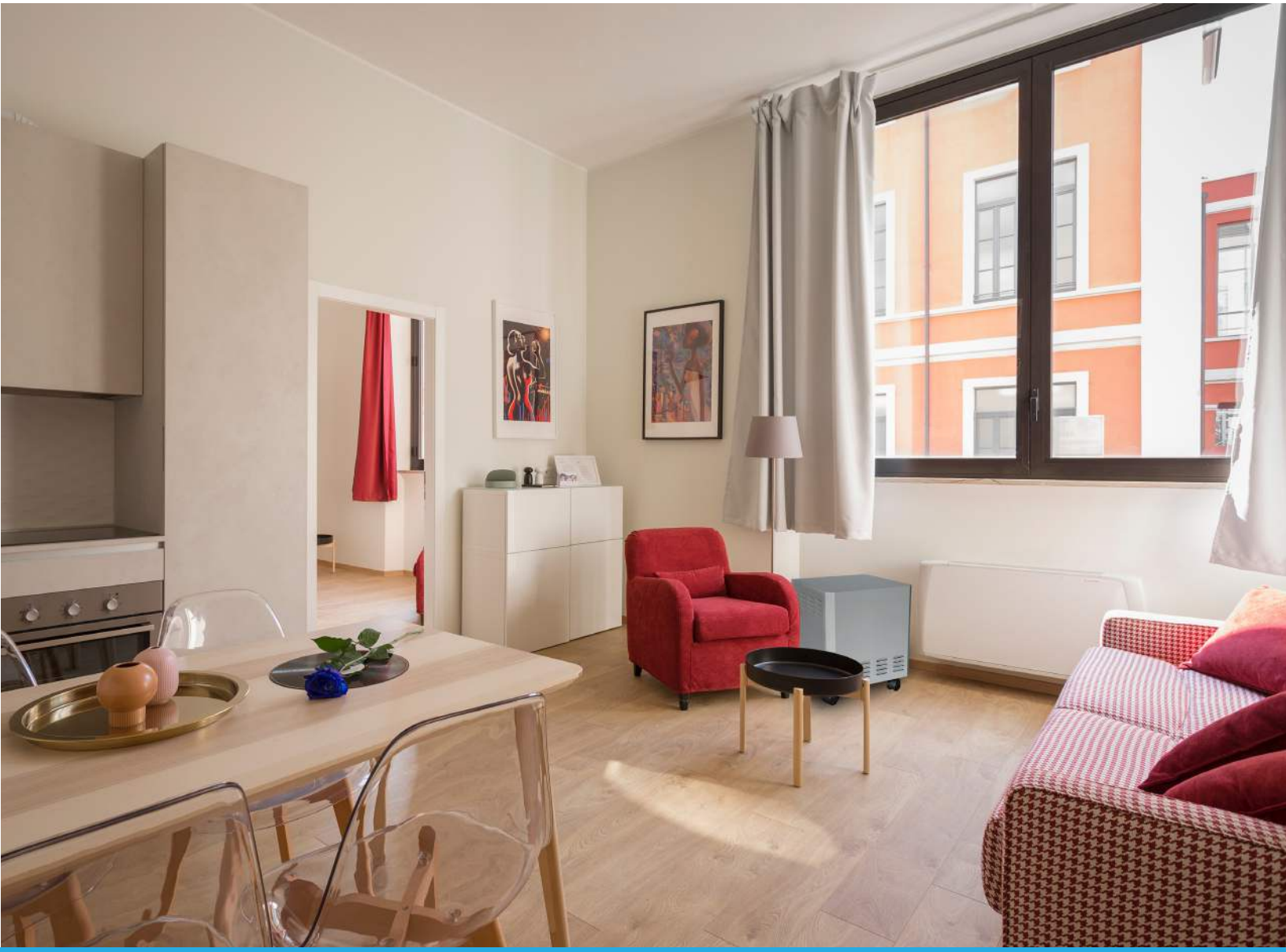

IQAir® MOLEKULE EnviroKlenz® Blueair

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