

# The Benchmark in Air Purification Technology

AMMONIA • BACTERIA • BENZENE • FORMALDEHYDE • PM 2.5 • TVOC



**SHEPROS®**

Safety, Health and Environment Product Solutions

# Air Purification System

**Highly durable Carbon Needle Anion generator of 10 million units/cm<sup>3</sup>.**



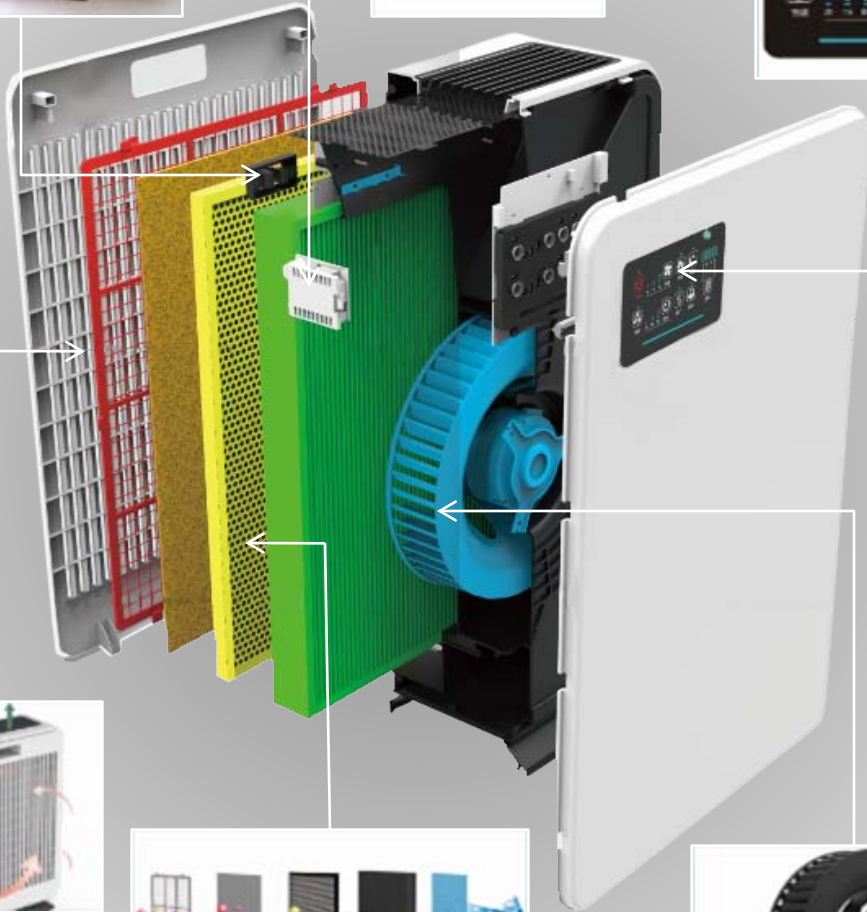
## Dust Sensor

1. Highly sensitive.
2. Stable.



## User friendly touch pad

1. Multiple mode selection.
2. Child safety lock.
3. Air quality indicator.
4. Filter replacement indicator.



**Air flow friendly.**



## Filtration System

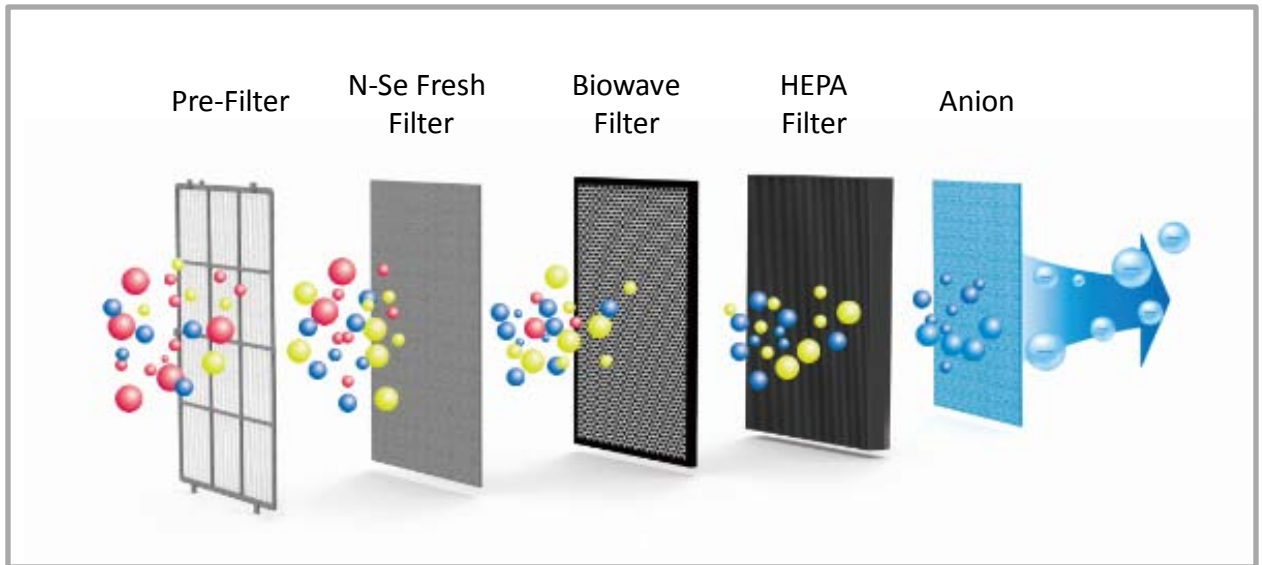
1. Pre-Filter.
2. N-Se Fresh Filter.
3. Biowave Filter.
4. HEPA Filter.
5. Anion Generator.



## Open Type Turbofan

1. Quiet.
2. Faster air purification.
3. Low energy consumption.

# High Performance Air Filtration Technology



**Pre-Filter** is used to keep large particles and debris such as hair, dust, pet fur and other larger particles from entering the air purifier. Without a pre-filter these larger particles would clog HEPA. The pre-filter is reusable and can be vacuumed or rinsed and then put back to work.

**N-Se Fresh Filter** is made from a combination of Nano Selenium Technology developed by Brown University (USA) and Hi-tech Carbon Fabric developed by United Kingdom military for Biological Chemical warfare. The application of this novel technology in air purification is very efficient for the removal of pathogens, odors, volatile organic compounds (VOCs), smoke and radon contaminants. It adsorbs a large volume of organic or inorganic molecules from various gases and acts as a high purity filter. It has a micro-porous structure which results in rapid adsorption kinetics and the capability to adsorb to a higher level of purity. Unlike activated carbon filter, N-Se Fresh Filter is suitable for use in applications where there is a high humidity as its adsorption capacity is less adversely affected by moisture.

**BIOWAVE Filter** is made of crystalline solid structures of silicon, aluminum and oxygen that form a framework with cavities and channels inside where cations, water and/or small molecules may reside. BIOWAVE's porous crystalline structure provides nano-pores or "cages" which have high affinity to adsorb air pollutants such as volatile organic compounds (VOCs), odors, photochemical smog and ionizing radiation particles.

**HEPA Filter** is used to trap small particles up to  $0.3 \mu\text{m}$  that may cause problems for allergy sufferers and others with health problems.

**Anion Generator** is a device that ionize air molecules. It eliminates suspended air pathogens and fine particles in the air.

# Product and Performance Specifications

## SHEPROS VK-6008 Air Purifier

Product Specifications		Performance Specifications	
CADR (PM 2.5)	450 m <sup>3</sup> /h	Ammonia	69%
Applicable Coverage	≤ 45 m <sup>2</sup>	Benzene	85%
Energy Efficiency Rating	★★★★★	Formaldehyde	86%
Product Dimension	440mm(L) x 180mm(W) x 682mm(H)	Particulate Matter 2.5 μm (PM 2.5)	> 99%
Packing Dimension	534mm(L) x 274mm(W) x 781mm (H)	Staphylococcus Bacteria	99.95%
Color	White	Total Volatile Organic Compounds (TVOC)	>99%

\* Testing methods are based on GB/T 18801-2008 and GB/T 18883 – 2002 (within 1 hour in a 30 m<sup>3</sup> chamber).

## Indoor Air Quality and Health

Health effects from indoor air pollutants may be experienced soon after exposure or possibly years later.

**Immediate effects** may show up after a single exposure or repeated exposures. These include irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue. Such immediate effects are usually short-term and treatable.

**Long term effects** may show up either years after exposure has occurred or after long repeated periods of exposure. These effects, which include some respiratory diseases, heart disease, and cancer, can be severely debilitating or fatal.



Household cleaners



Glues and Adhesives



Paints



Cigarette Smoke

# Typical Health Threats Due to Indoor Air Quality

## Red Eyes

Red eyes often are referred to as "allergy eyes," given that eye redness is a common indicator of an allergic reaction. When your immune system reacts to a foreign substance, such as pollen, pet dander, dust and certain chemicals found in household cleaners.



## Rhinitis

Rhinitis is a term describing the symptoms produced by nasal irritation or inflammation. Symptoms of rhinitis are due to blockage or congestion. They include:

- Runny nose
- Itching
- Sneezing
- Stuffy nose due to blockage or congestion

These symptoms are the nose's natural response to inflammation and irritation. The nose normally produces mucus to trap substances (like dust, pollen and chemical pollution) and germs (bacteria and viruses).



## Sore Throat Allergies

Sore throat allergies can be caused by several things most common of course is the flu or a cold but less often, a bacterial infection and allergic reactions may cause sore throat allergies. There are other causes for sore throat allergies such as indoor air that is dry due to winter weather and dry heat, especially in the morning.



## Airborne Irritant Contact Dermatitis

With airborne irritant contact dermatitis, a patch of tiny, scaly blisters crops up in an area of the face, neck, hand, waist, groin or wrist. Almost any skin sensitive child or adult can develop airborne irritant contact dermatitis after prolonged exposure to a naturally irritating substance such as pollen, pet dander, dust or certain chemicals found in household cleaners.



# Comparison References

This report is drafted based on the information of “Circular on Comparison Test Results of Air Purifiers” from <http://www.315.sh.cn/news/20130521/20130521001.html> and “Comparison Test Results from CPC Are Not As the Ads Say” from <http://sh.people.com.cn/n/2013/0520/c176737-18698041.html> which are highly influential medias in Shanghai, China. The Medias are exposing how manufacturers take the opportunity to introduce air purifier products with misleading advertisement claims of performances of their products. Shanghai Consumer protection Committee has entrusted the Shanghai Environmental Products Quality Supervision & Test Center to conduct test on the performance indicators commonly concerned by the consumers such as PM2.5 removal rate and formaldehyde removal rate. The tables below are used a guide to compare the performance of SHEPROS VK 6008 Air Purifier.

Brand	Spec. & model	PM 2.5 removal rate (%)
SHEPROS	VK 6008	>99
Amway	101076CH	>99
Blueair	503	>99
SHARP	KJF420AA	99
Electrolux	Z9123	98
DAIKIN	KC70KMYZ-R (KJFK336A)	97
HONEYWELL	18400	97
PHILIPS	AC4074	96
LOCK&LOCK	ELA-230C	96
SAMSUNG	AC-347HPAWQ	96
Broad	TA400	96
CADO	AP-C300-GD	95
LG	PH-U450WN	95
Panasonic	F-VXH50C	94
De'Longhi	AC230	93
AIO-O-SWIS SS	AOS2071	93
FMART	APL100	91
Giabo	PAC2300	90
Yadu	KJF2901	89
Gree	KJG155A	88
LEXY	KJ701-3	87
Sunpentown	YS-360ACC	79
Midea	KJ40FR-NG1	78

Brand	Spec. & model	Formaldehyde removal rate (%)
Blueair	503	97
SHEPROS	VK 6008	86
LEXY	KJ701-3	78
Amway	101076CH	76
Panasonic	F-VXH50C	70
SHARP	KJF420AA	61
DAIKIN	KC70KMYZ-R (KJFK336A)	56
PHILIPS	AC4074	53
Gree	KJG155A	50
SAMSUNG	AC-347HPAWQ	50
Midea	KJ40FR-NG1	46
Yadu	KJF2901	36
CADO	AP-C300-GD	29
AIO-O-SWIS SS	AOS2071	28
Giabo	PAC2300	26
LG	PH-U450WN	19
HONEYWELL	18400	17
De'Longhi	AC230	16
Electrolux	Z9123	16
FMART	APL100	12
Sunpentown	YS-360ACC	10
Broad	TA400	9
LOCK&LOCK	ELA-230C	8

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