



## About IQAir®

### **IQAir® is the first most advanced air purifier used in common indoor area**

Since 1963, the IQAir® manufacturer has specialized in dealing with indoor air pollution problem. With years of experience, it is capable of building the best value-for-money air cleaning system in the world, and providing filtration solutions for even the most challenging indoor application. Furthermore, all IQAir® systems are the products of Swiss precision engineering and superior craftsmanship. This ensures the whole system is maintained to the highest standard.

### **IQAir® - The Best of All**

- IQAir® produces the first air purifying system for the mass in the world.
- All IQAir® is individually tested before being sold in the market to ensure the filtration efficiency of each IQAir®.
- Only IQAir® provides free air quality test on the day of delivery, to guarantee all IQAir® sold to clients have the best filtration efficiency.  
(Available in particular cities)
- IQAir® can be equipped with different filters in order to combat specific airborne contaminants or gaseous pollutants. Also, it is supplemented with variable parts and flexible installation methods.
- IQAir® is used by all public and private hospitals in Hong Kong, and is highly recommended by medical professionals.

### **Unique Design and Intelligent Control Panel**

- Unique fan motor design with rubber suspension pads enables non-stop and ultra quiet operation in 24 hours 356 days.
- Special leakage prevention design differentiates IQAir® with other air purifiers that no pollutants accumulated in the housing.
- Intelligent control panel is equipped with filter life span indicator, timer and selection of language display.



### **Professional After-sales Service**

- All IQAir® air purifiers are entitled to comprehensive maintenance services to guarantee filtration efficiency.
- Free air quality tests are available to our customers upon request.  
(Available in particular cities and once per year)
- IQAir® maintenance teams are all professionally trained and provide on-site after-sales services.



### **Serious Air Pollution Problem**

Recent years, worsening air pollution problem has become a major public concern. You cannot escape from the pollutants in any locations. The air quality in specific regions is far beyond the safety standard that announced by the World Health Organization (WHO).

### **Do you know?**

- Air intake of each breath is approximately 1 litre of air.\*
- WHO recommended RSP level is 60,000 particles/ litre.\*\*
- Number of particles ( $\geq 0.3\mu\text{m}$ ) in **Canada** outdoors: as low as **5,000** particles/ litre.
- Number of particles ( $\geq 0.3\mu\text{m}$ ) in **Hong Kong**: more than **1,000,000** particles/ litre.

### **Can you imagine how much air pollutants we inhale everyday?**



Smog problem in Hong Kong



Factories and power plants in **China (Pearl River Delta)**



Particle test in **Nathan Road, Mongkok** (Particle Level: **1,414,996** particles/ litre; 24 times more than AQGs.)\*\*

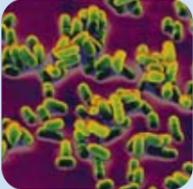


Particle test in **Canada** outdoors (Particle Level: **4,604** particles/ litre)

\*ParticleScan Advanced Particle Counter uses laser technology to detect  $\geq 0.3\mu\text{m}$  airborne particles.

\*\*World Health Organization (WHO) Air Quality Guidelines (AQGs) suggests recommended RSP level as  $\leq 20\mu\text{g}/\text{m}^3$ , approximate to 60,000 particles/ litre of air.



Air Pollutants		
Types	Source	Potential Health Problems
Particulate Pollutants 	Bacteria and Viruses	Infections and diseases
	Mould Spores	Allergic reactions
	Fine Dust	
	Pollen	
	Dust Mites and their excrements	
Smoke	Irritates eyes, throat and lung Causes respiratory problems	
Gaseous Contaminants  	Volatile Organic Compounds (VOCs)	Irritates eyes, nose, throat and lung Causes respiratory problems Increases the risk of cancer
	Formaldehyde (HCHO)	Long exposure to high concentration can be fatal
	Ozone (O <sub>3</sub> )	Irritates eyes and lung High concentration leads to respiratory and lung problems Long exposure to high concentration can be fatal
	Carbon Monoxide (CO)	Causes cardiovascular diseases Fatigue, Nausea, Rapid breathing Impairs judgement Long exposure to high concentration can be fatal
	Carbon Dioxide (CO <sub>2</sub> )	Fatigue Concentration problems Reduces judgement Burden the heart workload Easy spread of bacteria and viruses
	Nitrogen Dioxide (NO <sub>2</sub> )	Irritates eyes and lung Causes respiratory problems

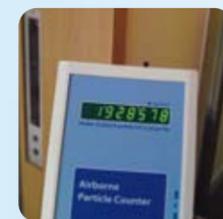
Enjoy clean air wherever you want in indoor area...



Particle level in smoking area: more than 1,600,000 particles/ litre, i.e. 27 times higher than AQGs.\*



VOCs level of newly made wardrobe: more than 4,000 ppb, i.e. 16 times higher than the EPA IAQ Guidance.\*\*



Particle level at the lift lobby of an industrial building: more than 1,900,000 particles/ litre, i.e. 32 times higher than AQGs.\*



VOCs level of a newly renovated kid's room: more than 5,200 ppb, i.e. 20 times higher than the EPA IAQ Guidance.\*\*



CO<sub>2</sub> level in a conference room: more than 2,500 ppm, i.e. 2 times higher than the EPA IAQ Guidance.\*\*



Indoor HCHO level: more than 200 ppb (means 0.2ppm), i.e. 2 times higher than the EPA IAQ Guidance.\*\*



The indoor RSP level drops by a significant amount after applying IQAir®.

\*World Health Organization (WHO) Air Quality Guidelines (AQGs) suggests recommended RSP level as  $\leq 20 \mu\text{g}/\text{m}^3$ , approximate to 60,000 particles/ litre of air.

\*\*Environmental Protection Department (EPD) IAQ Guidance documents suggest: acceptable levels of CO<sub>2</sub> ( $\leq 1000$  ppm), VOCs ( $\leq 261$  ppb) and HCHO ( $\leq 81$  ppb).

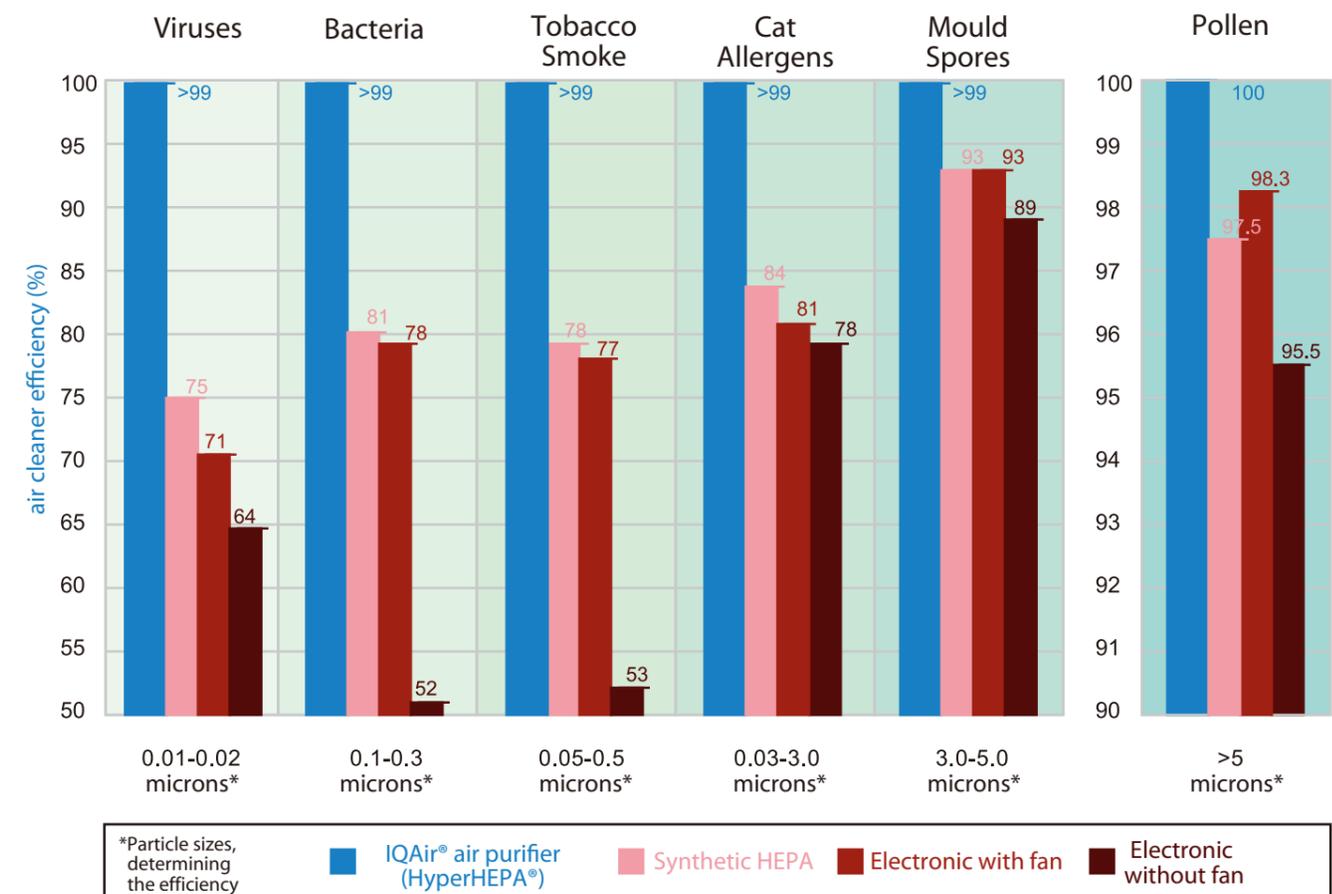


### Different Types of Air Purifiers

Types of Air Purifiers	Features	Disadvantages
Ionization / Ionizers (positive & negative ions)	<ul style="list-style-type: none"> <li>Temporarily reduce airborne particles like bacteria and viruses.</li> <li>Relatively cheap air purifying technology.</li> </ul>	<ul style="list-style-type: none"> <li>Particles are not actually removed, but adhere to surfaces of different objects.</li> <li>Particles may even adhere to users' face or different parts of their bodies.</li> <li>As the particles lose their charges over time, they will become airborne again.</li> <li>Do not remove gases and odours.</li> <li>Create ozone as a by-product.</li> </ul>
UV Light	<ul style="list-style-type: none"> <li>Kill bacteria and viruses to a certain extent.</li> <li>Relatively cheap air purifying technology.</li> </ul>	<ul style="list-style-type: none"> <li>Particles are not actually removed.</li> <li>Do not remove gases and odours.</li> <li>Do not kill microorganisms that pass through the UV light in high speed.</li> </ul>
Photocatalytic Oxidation (PCO, TiO <sub>2</sub> )	<ul style="list-style-type: none"> <li>Kill bacteria and viruses to a certain extent.</li> <li>Eliminate partial VOCs.</li> <li>Dissolve partial odours.</li> </ul>	<ul style="list-style-type: none"> <li>Particles are not actually removed.</li> <li>Possibility of evolving into other harmful by-products, e.g. alcohol may evolve into formaldehyde.</li> <li>Do not kill microorganisms that pass through the PCO light in high speed.</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>Kill bacteria and viruses to a certain extent.</li> <li>Eliminate partial VOCs.</li> <li>Dissolve partial odours.</li> </ul>	<ul style="list-style-type: none"> <li>Particles are not actually removed.</li> <li>No independent evidence show low ozone concentration can actually destroy microorganisms.</li> <li>Excess ozone is harmful to health and causes lung diseases.</li> </ul>
Electronic Air Cleaner (Electrostatic Precipitator EP)	<ul style="list-style-type: none"> <li>Use high voltage to collect dust and stuck them together, so that the dust cannot be released.</li> <li>No need to use filter, hence, reduce airflow resistance.</li> </ul>	<ul style="list-style-type: none"> <li>Create ozone as a by-product.</li> <li>When too many particles accumulated on the surface, overall efficiency drops.</li> <li>Do not remove gases and odours.</li> <li>Risk of fire accident.</li> </ul>
Activated carbon	<ul style="list-style-type: none"> <li>Safest and most popular technology to handle gaseous pollutants.</li> </ul>	<ul style="list-style-type: none"> <li>Replace filters when saturated.</li> <li>If the chemical level is extremely high, the volume of activated carbon should be more.</li> <li>Require special storage to prevent low efficiency.</li> </ul>
Common HEPA Filter	<ul style="list-style-type: none"> <li>The filtering media is made of glass fibre to filtrate particles effectively.</li> <li>No harmful gases or chemicals will be produced.</li> <li>Safest and most popular technology to filtrate fine particles.</li> </ul>	<ul style="list-style-type: none"> <li>Increase airflow resistance, which requires a powerful motor as a result.</li> <li>To fit the size of HEPA filter, air purifier housing has to be enlarged.</li> <li>Most HEPA filters have not passed EN1822, filtration efficiency is not guaranteed.</li> <li>Bacteria and viruses are accumulated in the gaps between HEPA filter and the housing, as well as the bottom of the filter. They will become pollutant sources and re-circulate indoors.</li> <li>Pollutants may spread out indoors if filter replacement is not under safety precautions.</li> <li>Cannot remove gaseous type contaminants.</li> </ul>

### IQAir's HyperHEPA® Technology

The accredited test laboratory, Interbasic Resources Inc., purchased a number of room air purifiers and tested their filtration efficiencies. Only IQAir® air purifiers were able to trap over 99% of virtually all types of particle pollutions. The below graphs are based on independent laboratory tests which determine the removal efficiency of HyperHEPA® filters for various particle size ranges. The test shows that IQAir's HyperHEPA® filter is the most efficient and reliable filter media which guarantees powerful and stable long-term performance. Even the World Health Organization (WHO) and the Centre of Controlled Diseases in the U.S. (CDC) state that HyperHEPA® filter can absolutely filtrate fine dust, bacteria and viruses. During the outbreak of SARS in 2003, IQAir® was adopted in all public and private hospitals in Hong Kong, so as to safeguard the health of medical staffs and patients.





IQAir® has received **the most No.1** product awards and reviews including:



### American Lung Association Partnership

Since 2004, this exclusive partnership has combined the American Lung Association's over 100 years commitment to preventing lung disease and promoting lung health with IQAir®'s over 40 years commitment to air cleaning excellence.



### Stiftung Warentest "Test Winner" in Test 9/98

Stiftung Warentest in Germany tested 10 brands of air filter, and only IQAir® was commented to have the best filtration efficiency of airborne particles.



### Consumer Digest's "Best Buy" Award 2006/2011

Founded in 1960, Consumer Digest in the U.S. awarded IQAir® air purifying system with the "Best Buy" awards in 2006 and 2011 respectively.



### Consumer Guide "Best Buy" Award 2005/2006

The U.S. howstuffworks.com set up the Consumer Guide website. It commented on different brands of air purifiers and concluded that IQAir® air purifying system had the highest rating in all aspects, namely the price, performance, operation method and functions.



### Reviewboard.com "Best Buy"

Reviewboard.com of the U.K. recognized IQAir® as the "Best Buy".



### Allergy Buyers Club 2003-2006/2011

The U.S. Allergy Buyers Club reviews and rates products for individuals with allergies or asthma. IQAir® is the only air cleaner that receives Allergy Buyers Club's top 5-star rating.



### Consumer Search 2005/2006

The U.S. Consumer Search reviews the reviewers and says IQAir® "is the best option for people with severe allergies." After looking at the many product reviews in the air cleaner category, Consumer Search says that IQAir® is clearly No.1.



### Newsweek Magazine on IQAir®

"We tested an IQAir® air purifier in a basement that had been collecting dust for 20 years, and after two days, that musty smell was gone." The magazine commented IQAir® as being "designed for even larger areas, like the single floor of a house."



### Cigar Aficionado Magazine on IQAir®

"We tested the IQAir® air purifier with GC MultiGas filters in less-than-laboratory, but smokier-than-average conditions in the Cigar Aficionado offices, and found it performed admirably under the strain. The unit quickly cleared smoke out of a small office, and soon after the traces of cigar were unnoticeable."



### Extreme Makeover 2004 - 2009

Since 2004, the programme "Extreme Makeover" of the ABC has been cooperated with IQAir® in assisting numerous families to construct non-polluted purified homes.

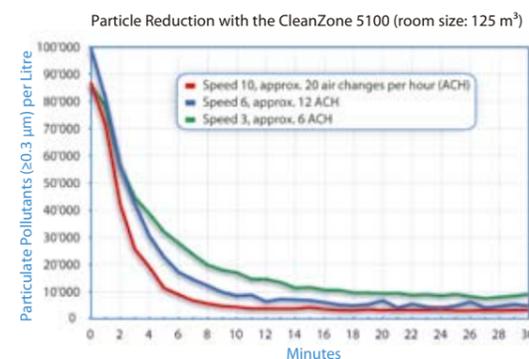
IQAir® CleanZone Series air purifying system, being the largest system in the market, offers high-volume, high-efficiency performance at minimal noise levels.

#### High-efficiency Performance

- Filtrate fine and ultra-fine particles of all types, including infectious bacteria and viruses, etc.
- Target over 2,000 gaseous contaminants and VOCs (applicable to CleanZone 5300 Series)
- Guarantee filtration efficiency
- Large mobile air purifying system with the highest efficiency

#### Performance Test

The effectiveness of CleanZone 5100 was tested in a 50m<sup>2</sup> room that was non-sealed with a general central ventilation system. The RSP level dropped from over 85,000 particles/ litre of air to less than 5,000 particles/ litre of air with the system operating at the highest fan speed within 10 minutes, achieving a 95% particle reduction. Even at a low fan speed the CleanZone removed 90% of all particulate contaminants within 20 minutes of use. In protected environments the CleanZone can achieve actual particle reductions of up to 99% which represents a 100-fold air quality improvement.



#### Minimal noise level

- Ultra quiet operation
- In compliance with the Environmental Protection Agency (EPA)'s hospital settings of 45 dB(A) sound level

#### Extensive application area

- High volume of CleanZone Series contributes to large application area ranging from 1,000 to 5,000 sq. ft (equals 100 – 500m<sup>2</sup>, 2.7m height)
- Choice of gas phase media for optimized removal of gaseous chemicals and odours fit the requirements of different clients and environments, including profession, public institutions, trade & industry and villas, etc.
- Suitable for FDA-required controlled environments

Profession	Public Institution	Trade & Industry
✓ Medical practices/clinics / hospitals	✓ Nursing homes	✓ Bars/restaurants/hotels/casinos
✓ Laboratories	✓ Archives	✓ Offices
✓ Intensive care units (ICU)	✓ Libraries	✓ Print shops
✓ Isolation rooms	✓ Airports	✓ Smoking rooms/cigar lounges
✓ Post-operative recovery rooms	✓ Cafeterias	✓ Conference rooms
✓ Dialysis centers	✓ Kindergartens & preschools	✓ Art restoration & conversation
✓ Emergency & field medical care units	✓ Museums	✓ Data centers/network server rooms
✓ Electronics manufacturers	✓ Schools	✓ Nail & beauty salons
✓ Mortuary	✓ Villas	✓ Fitness studios & wellness centres

#### Profession Approval

- Safety approved in accordance with hospital norms
- Engineered for airborne infection control and compliance with OSHA and CDC guidelines





## Design Features

### 1. Air Outlet Diffuser

- Maximum distance from air intake ensures the highest air cleaning effectiveness
- Optional connection to air ducts for creation of positive and negative pressure environments

### 2. Main Filter Module

- Can be individually configured for specific pollutants

### 3. Handle Bar

- Flexible installation

### 4. Digital Control Panel

- Intelligent filter life monitor
- Programmable daily/weekly timer
- Selection of different languages

### 5. Fan Module

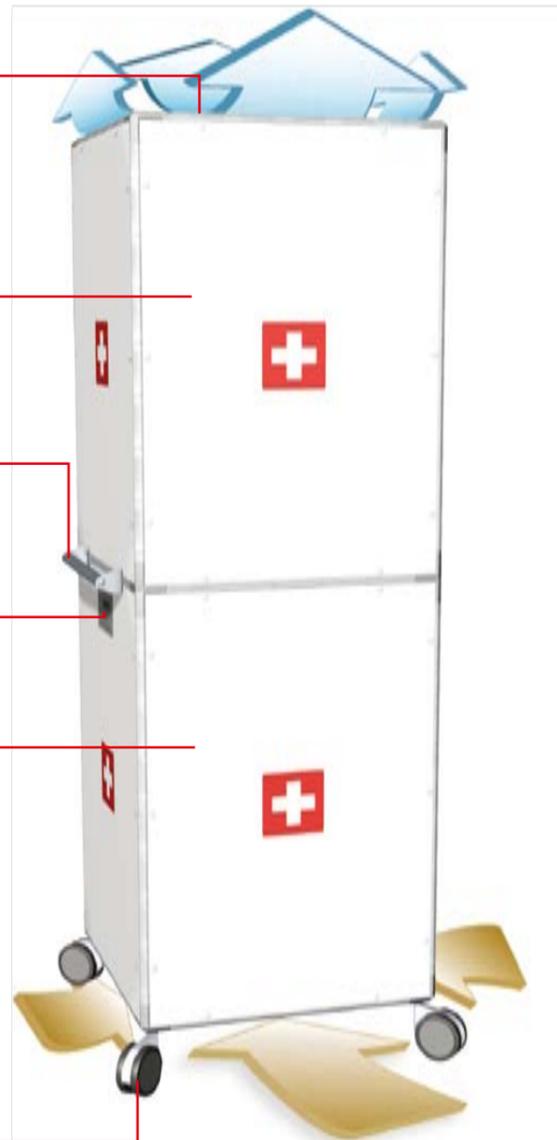
- Ultra quiet design
- Capable of non-stop operation in 24 hours 365 days

### 6. Air Intake

- Maximum distance from air outlet for the best air circulation
- Optional connection to air ducts for creations of positive and negative pressure environments

### 7. Heavy Duty Casters

- For easy relocation and quick emergency deployment



Intelligent control panel can be mounted on wall for easy control.



All Cleanzone Series can be connected to ducting for different kinds of installation.

## Comparison Chart

		CleanZone 5100	CleanZone 5300	CleanZone SL
Model Overview				
Technical Data	Airflow Rate (max.)	2,400 m <sup>3</sup> /hr	1,800 m <sup>3</sup> /hr	820 m <sup>3</sup> /hr
	Removal Efficiency for Particulates(≥ 0.3µm)	≥99.97%	≥99.97%	≥99%
	Weight (incl. filters)	75 kg	120 kg	32 kg
	Sound Power Level	38-73 dB(A)		30-48 dB(A)
	Dimensions (incl. casters)	643 x 643 x 1943 mm		730 x 250 x 1910 mm
	Additional Features	Non-stop motor; 10 fan-speed setting; intelligent filter life monitor for each filter		Non-stop motor; 5 fan-speed setting; intelligent filter life monitor for each filter
	Power Consumption	230V : 50Hz : 25-500W		230V : 50Hz : 18-90W
	Electrical Configuration	220-240V : 50/60Hz		
Filters	Pre-Filter	PreMax™ 500 high-capacity fine dust filter (class F9 / MERV 16) surface area 17 m <sup>2</sup>		—
	Particle Filter	HyperHEPA®700 – filter drum class H12/13; surface area 28 m <sup>2</sup>	HyperHEPA®300 – filter drum class H12/13; surface area 12 m <sup>2</sup>	HyperHEPA® H11 class filter; surface area 12.8 m <sup>2</sup>
	Broad-Spectrum Gas & Odour Filters (standard)	—	MultiGas™ GCX cartridges (12 pieces; 31 kg)	—
	Specialised Gas & Odour Filters (optional)	—	ChemiSorber GCX cartridges (12 pieces; 42 kg)	MultiGas™ GCX cartridges (4 pieces; 9.8 kg)
	Formaldehyde, hydrogen sulfide, sulfur dioxide, etc.	—	VOC GCX cartridges (12 pieces; 24 kg)	ChemiSorber GCX cartridges (4 pieces; 14.6 kg)
	Volatile organic compounds (e.g. benzene, toluene, xylene), chlorine, nitrogen dioxide, etc.	—	AM GCX cartridges (12 pieces; 28 kg)	VOC GCX cartridges (4 pieces; 7.8 kg)
	Ammonia and other base substances	—	Hg GCX cartridges (12 pieces; 28 kg)	AM GCX cartridges (4 pieces; 9.8 kg)
	Mercury vapours	—	AcidPro GCX cartridges (12 pieces; 28 kg)	Hg GCX cartridges (4 pieces; 9.8 kg)
Acid gases	—	—	AcidPro GCX cartridges (4 pieces; 9.8 kg)	