

 **IQAir**[®]
Air Cleaning Perfection

Good Health Starts with Clean Air

 **IQAir**[®]

Advanced Indoor Air Cleaning Solutions
www.iqair.com.hk



 **Swiss Made**

www.iqair.com.hk

IQAir[®] Exclusive Authorized Dealer in Hong Kong & Macau

AFT
AF-T GROUP
Since 1973

AirTek Limited
Fabri-Technic Engineering & Trading Co., Limited
飛達工程貿易有限公司

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About IQAir®

IQAir® Making The World A Better Place To Breathe

Since 1963, IQAir® has specialised in dealing with indoor air pollution problems. With years of experience, it is capable of building the best value for money air cleaning systems in the world, providing filtration solutions for even the most challenging indoor situations. All IQAir® systems are products of Swiss precision engineering and superior craftsmanship, ensuring that each system is built to the highest standard.

IQAir® - Pursuing Air Cleaning Excellence

- IQAir® is the world's first air purifying system for the mass.
- Each IQAir® is individually tested before it is launched into the market to ensure the filtration efficiency of each IQAir®.
- IQAir® can be equipped with different filters in order to combat specific airborne contaminants or gaseous pollutants. Also, it is supplemented with variable accessories providing flexible installation methods.
- IQAir® is installed in more than 80% of hospitals in Hong Kong and highly recommended by medical professionals.

Unique Design With An Intelligent Control Panel

- Unique fan motor design with rubber suspension pads enables non-stop and ultra quiet operation in 24 hours 365 days.
- Special leakage prevention design ensures that no pollutants will be accumulated in the housing.
- Intelligent control panel is equipped with filter life span indicator, timer and a selection of language display.



Professional After-sales Service

- All IQAir® air purifiers are entitled to comprehensive maintenance services to guarantee filtration efficiency.
- IQAir® maintenance teams are all professionally trained to provide on-site after-sales services.



Serious Air Pollution Problem

In recent years, air pollution in Hong Kong has worsened causing major public concern. According to the World Health Organization (WHO), the air quality in specific regions in Hong Kong have exceeded far beyond safety standards.

Do you know?

- Each breath you inhale 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 many air pollutants we inhale everyday?



Smog damaging Hong Kong



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



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

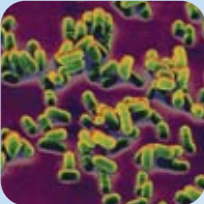




Particle test in **Canada** outdoors (Particle Level: **4,604** particles/ litre)

*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) Formaldehyde (HCHO)	Irritates eyes, nose, throat and lung Causes respiratory problems Increases the risk of cancer Long exposure to high concentration can be fatal
	Ozone (O ₃)	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 ₂)	Fatigue Concentration problems Reduces judgement Burden the heart's workload Fosters bacteria and viruses
	Nitrogen Dioxide (NO ₂)	Irritates eyes and lung Causes respiratory problems

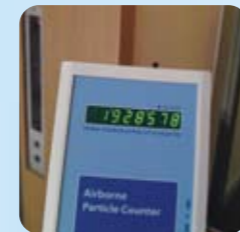
Enjoy the benefits of clean air anywhere indoors...



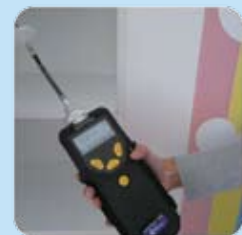
Particle level in smoking area: more than 1,600,000 particles/ litre, i.e. 27 times higher than AQGs.*



VOCs level of newly made wardrobe: more than 1,100 ppb, i.e. 4 times higher than the EPD 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 EPD IAQ Guidance.**



CO₂ level in a conference room: more than 2,500 ppm, i.e. 2 times higher than the EPD IAQ Guidance.**



Indoor HCHO level: more than 200 ppb (means 0.2ppm), i.e. 2 times higher than the EPD 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 CO₂ (≤ 1000 ppm), VOCs (≤ 261 ppb) and HCHO (≤ 81 ppb).

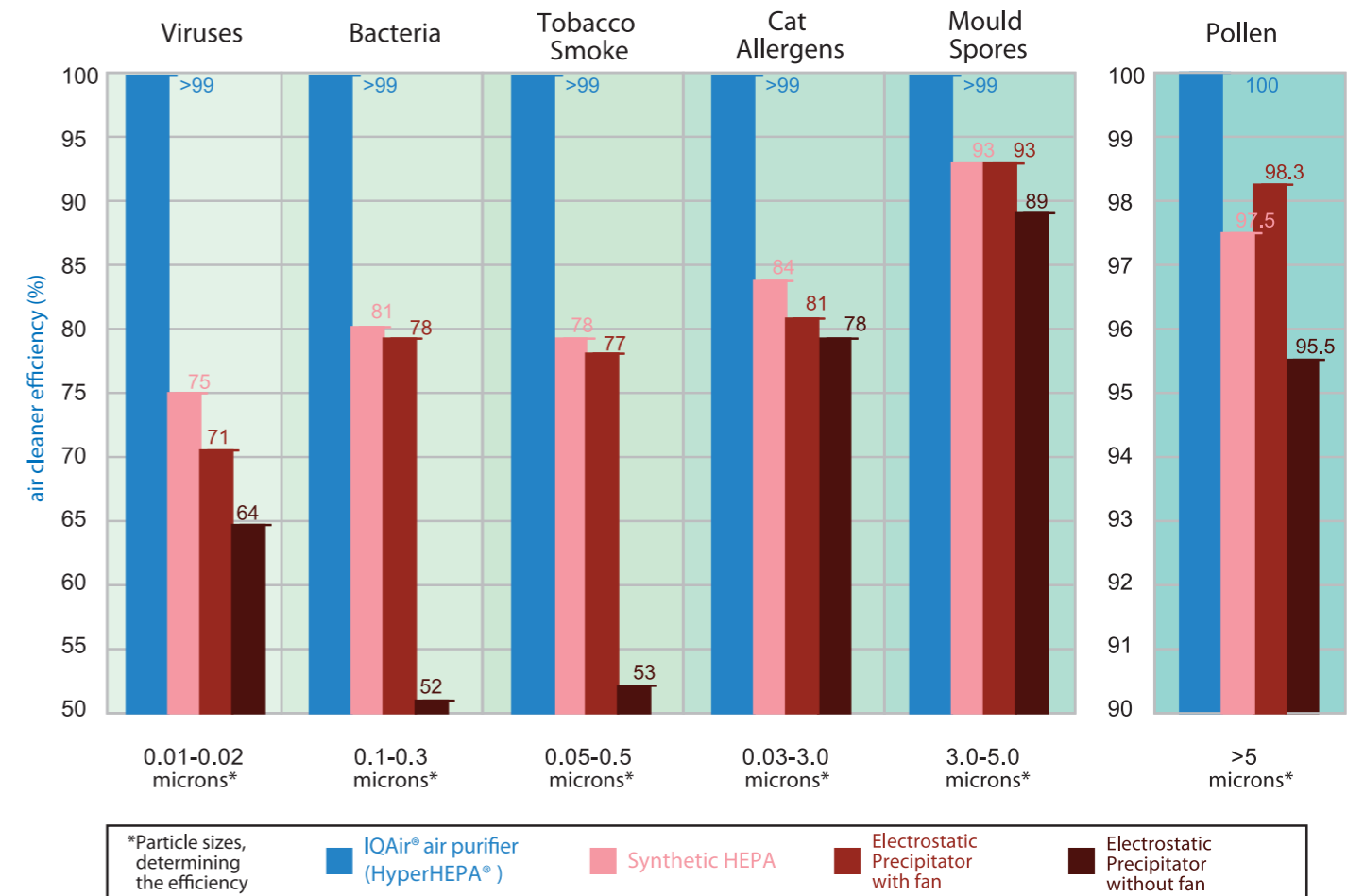


Different Types of Air Purifiers

Types of Air Purifiers	Features	Disadvantages
Ionization / Ionizers (positive & negative ions)	<ul style="list-style-type: none"> Temporarily reduces airborne particles like bacteria and viruses. Low end air purifying technology. 	<ul style="list-style-type: none"> Particles are not actually removed, but adhere to different surfaces. Particles may even adhere to users' face or other parts of their body. As the particles lose their charges over time, they will become airborne again. Does not remove gases and odours. Creates ozone as a by-product.
UV Light	<ul style="list-style-type: none"> Kill bacteria and viruses to a certain extent. Low end air purifying technology. 	<ul style="list-style-type: none"> Particles are not actually removed. Does not remove gases and odours. Does not kill microorganisms that pass through the UV light at high speeds.
Photocatalytic Oxidation (PCO, TiO₂)	<ul style="list-style-type: none"> Kill bacteria and viruses to a certain extent. Eliminates partial VOCs. Dissolves partial odours. 	<ul style="list-style-type: none"> Particles are not actually removed. Possible harmful by-products are generated. Does not kill microorganisms that pass through the PCO light at high speeds.
Ozone (O₃)	<ul style="list-style-type: none"> Kills bacteria and viruses to a certain extent. Eliminates partial VOCs. Dissolves partial odours. 	<ul style="list-style-type: none"> Particles are not actually removed. No independent evidence to support claims that low ozone concentrations can exterminate microorganisms. Excess ozone is harmful to health and can significantly increase incidences of lung disease.
Electronic Air Cleaner (Electrostatic Precipitator EP)	<ul style="list-style-type: none"> Uses high voltage to charge dust particles and bind them to corresponding collecting electrodes. No filtering system necessary, thus reducing airflow resistance. 	<ul style="list-style-type: none"> Creates ozone as a by-product. Does not remove gases and odours. Risk of fire incidences.
Activated carbon	<ul style="list-style-type: none"> The safest and most popular technology to handle gaseous pollutants. 	<ul style="list-style-type: none"> More activated carbon is required to tackle extremely high chemical levels. Require special storage to prevent declines in efficiency.
Common HEPA filter	<ul style="list-style-type: none"> The filtering media consists of glass fibres, which can filtrate particles effectively. No harmful gases or chemicals are produced. The safest and most popular technology to filtrate fine particles. 	<ul style="list-style-type: none"> With increased airflow resistance, a powerful motor is required. To fit the size of a HEPA filter, air purifier housings have to be enlarged. Bacteria and viruses accumulate in the gaps between HEPA filter and the housing, as well as at the bottom of the filter. These pollutant sources can become hazardous and re-circulate indoors. Pollutants may continue to spread indoors if the filter replacement is not performed under safety precautions. Cannot remove gaseous type contaminants.

IQAIR®'s HyperHEPA® Technology

An accredited test laboratory, Interbasic Resources Inc., purchased a number of indoor air purifiers to test their filtration efficiencies. Results show that only IQAir® air purifiers were able to trap over 99% of virtually all types of particle pollutions. Based on independent laboratory tests, the graph below demonstrates the removal efficiency of HyperHEPA® filters for various particle sizes. The tests show that the IQAir®'s HyperHEPA® filter is the most efficient and reliable filter media, guaranteeing powerful and stable long-term performance. Even the World Health Organisation (WHO) and the Centre of Controlled Diseases in the US (CDC) state that HyperHEPA® filter can absolutely filtrate fine dust, bacteria and viruses.





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

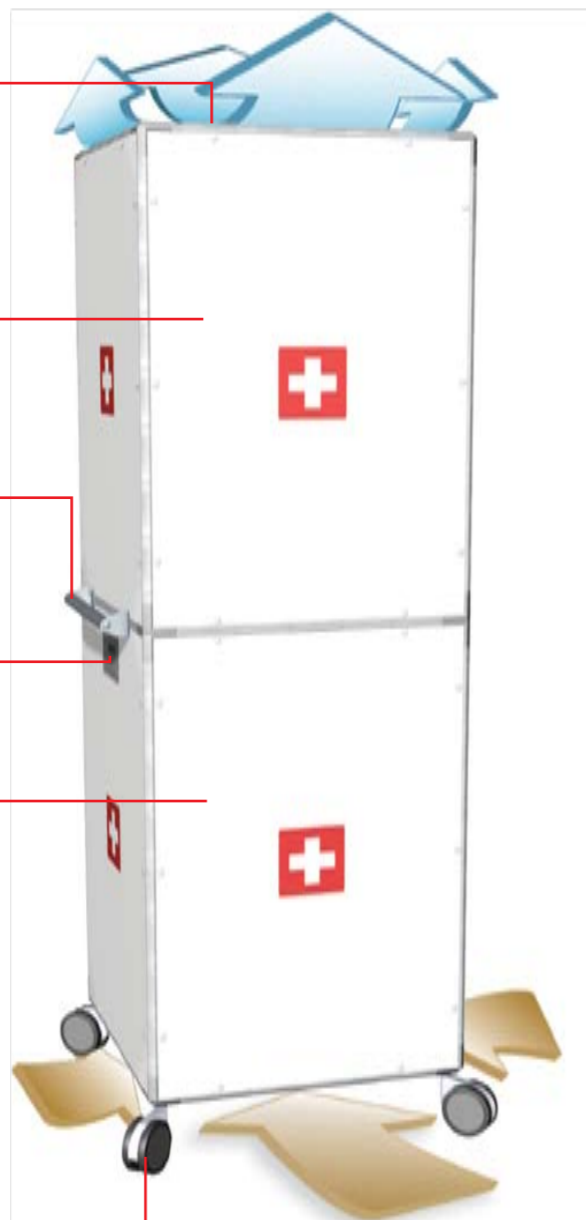
- Ultra quiet operation
- Capable of non-stop operation in 24 hours 365 days

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



Digital Control Panel

- 10 fan speed settings
- programmable daily/weekly timer
- remote control
- intelligent filter life monitor
- key-lock function
- programmable pollution index

AUTO TIMER: ON
07:00 → 20:00

REMAINING LIFE
Filter 1: 14000 h

COARSE DUST
LEVEL: HIGH

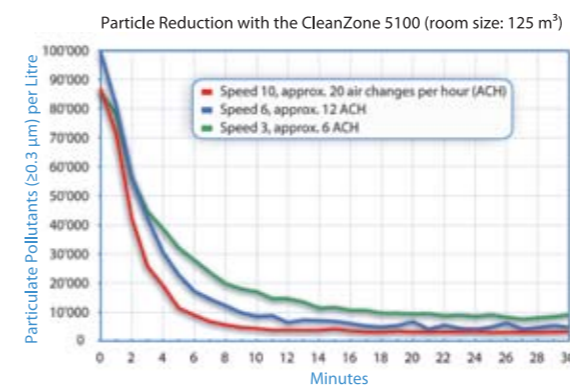
IQAir® CleanZone Series air purifying system, being the largest system in the market, offers high-volume, high-efficiency performance at minimal noise levels.

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 50m² 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 – 500m², 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

Applications

Medical & Healthcare	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





CleanZone 5000 Series

Model Overview		CleanZone 5100	CleanZone 5300
Technical Data	Airflow Rate (max.)*	2,400 m ³ /hr	1,800 m ³ /hr
	Removal Efficiency for Particulates(≥ 0.3µm)	≥99.97%	≥99.97%
	Weight (incl. filters)	75 kg	120 kg**
	Sound Power Level	38 - 73 dB(A)	
	Dimensions (incl. casters)	643 x 643 x 1943 mm	
	Additional Features	10 fan-speed setting; intelligent filter life monitor for each filter	
	Power Consumption	20 - 480 Watt	
	Electrical Configuration	220 - 240V : 50/60Hz	
Filters	Pre-Filter	PreMax™ 500 high - capacity fine dust filter (class F9 / MERV 16) surface area 17 m ²	
	Particle Filter	HyperHEPA®700 – filter drum class H12/13; surface area 28 m ²	HyperHEPA®300 – filter drum class H12/13; surface area 12 m ²
	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)
	Formaldehyde, hydrogen sulfide, sulfur dioxide, etc.	–	
	Volatile organic compounds (e.g. benzene, toluene, xylene), chlorine, nitrogen dioxide, etc.	–	VOC GCX cartridges (12 pieces; 24 kg)
Ammonia and other base substances	–	AM GCX cartridges (12 pieces; 28 kg)	
Mercury vapours	–	Hg GCX cartridges (12 pieces; 28 kg)	
Acid gases	–	AcidPro GCX cartridges (12 pieces; 28 kg)	

*tolerance: tolerance ± 10%; **based on MultiGas™ media. Weight may vary depending on installed gas phase media type; #All technical specifications are subject to change without prior notice.

CleanZone SL Series

Model Overview		CleanZone SL	CleanZone SLS
Technical Data	Airflow Rate (max.)*	820 m ³ /hr [†]	
	Removal Efficiency for Particulates(≥ 0.3µm)	≥99%	
	Weight (incl. filters)	32 kg	45 kg (58 kg with optional GCX Filter Set)**
	Sound Power Level	25 - 56 dB(A)	23 - 48 dB(A)
	Dimensions (excl. casters)	730 x 250 x 1120 mm	730 x 250 x 1820 mm
	Additional Features	5 fan-speed setting; intelligent filter life monitor for each filter	
	Power Consumption	12 - 74 Watt	
	Electrical Configuration	220 - 240V : 50/60Hz	
Filters	Particle Filter	HyperHEPA® H11 class filter; surface area: approx. 13.3 m ²	
	Gas Phase Filter [†] (Not included. Optional upgrade.)	- GCX Cartridge Filter Set - Cartridge Mounting Plate	- GCX Post-Filter Sleeve Set - Silencer Module (For Cleanzone SL ONLY)
	Media Options: Formaldehyde, hydrogen sulfide, sulfur dioxide, etc.	MultiGas™ GCX cartridges (4 pieces; 9.8 kg); ChemiSorber GCX cartridges (4 pieces; 14.6 kg)	
	Volatile organic compounds (e.g. benzene, toluene, xylene), chlorine, nitrogen dioxide, etc.	MultiGas™ GCX cartridges (4 pieces; 9.8 kg); VOC GCX cartridges (4 pieces; 7.8 kg)	
	Ammonia and other base substances	AM GCX cartridges (4 pieces; 9.8 kg)	
Mercury vapours	Hg GCX cartridges (4 pieces; 9.8 kg)		
Acid gases	AcidPro GCX cartridges (4 pieces; 9.8 kg)		

*tolerance: tolerance ± 10%; **based on MultiGas™ media. Weight may vary depending on installed gas phase media type; †adding GCX gas phase filtration will reduce air flow by approx. 50% #All technical specifications are subject to change without prior notice.