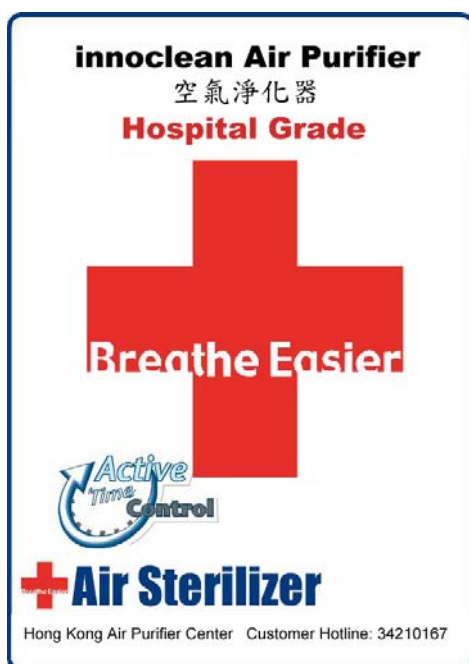


## 400 & 300 Series Technical Data Sheet

### 400 及 300 系列技術說明書

8 Different Models / 8 個不同型號

HealthPro	ChemPro HEPA
MultiTrap	ChemPro EP
SmokeTrap	OdorVOC HEPA
Cleanroom	OdorVOC EP



**Hospital Grade**

醫療級

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我們每日超過 70%時間處於室內進行各項活動。而有很多人，尤其是患有長期疾病的人仕，更爲了避開街外的空氣污染問題，寧願留在室內，以爲這會較爲安全。但事實上，他們可能正面對更大的危機，因爲他們處身的室內空間的『**室內空氣質素 (IAQ)**』有可能比室外的空氣差 100 倍！

就單憑空氣中的懸浮粒子爲例，一般街道上每升空氣可能有超過一億個有害害粒子，而在室內，每升空氣的有害害粒子含量更可能高達一仟億個；這還未計算當中的細菌及化學物質含量。

### 您有否注意您呼吸的空氣質素嗎?

每一個室內環境中，其實都存在著不同的物質，正在污染我們吸入的空氣。一些致敏原如塵埃、花粉、人類和寵物毛屑，過遠性病毒及細菌（常見如感冒菌）；由建築物料中不定時發出的致癌物如氡氣（Radon）、二手煙、甚至由傢俱、室內裝修、地氈及清潔劑發出的甲醛及揮發性有機化合物（Formaldehyde & VOC）等化學物質，都會影響室內空氣質素及對我們健康產生不同情度的影響。

### 全方位淨化室內空氣質素之專業選擇

醫療級配備，配合多重(獨立式)空氣淨化區設計，相信是 Innoclean 300/400 系列能於本港各界備受歡迎及採用之關鍵所在。

其實每一個室內空間都存在着不同的污染物而引起不同的污染問題，可惜現今沒有一部能同時有效淨化不同的污染物的空氣淨化器，例如有效除塵之同時，可能未能有效去除異味與殺菌，相反亦然。

### 革命性多層獨立淨化區設計

相比市面上發售的各種空氣淨化器，此系列的「醫療級」空氣淨化系統更能適應不同的室內空間用途及面對的污染問題的真正需要，以「針對性」的解決方法以改善室內空氣質素。當中包括：

設有不同過濾系統配搭，可爲每個室內空間的不同需要，「度身訂造」機內獨立式淨化系統，可進一步分解多種生物及化學物質，並可加強消毒功效，以達致「針對性」的解決效果

“innoclean”的滾輪設計可自由地移動，無需安裝，只需插上電源便立刻可用。獨立設計的過濾方式消除空氣中的灰塵、花粉、煙等污染物和令人不快的氣味、有毒氣體，同時去除細菌和病毒。

澳洲品牌：“innoclean”之專利設計技術，配合日本催化過濾網，新加坡抗菌塗層（美國環境保護處認證），及台灣之紫外光燈及不同設計配合不同需要的 IC Pro 專業過濾網係列結合而成。是一部絕對醫療級之專業產品。從而被廣泛應用於多間醫院，更獲得“香港醫院管理局 - 瑪麗醫院”發出之“測試滿意確認信”。

### 證書及測試報告：

1. CE / CQC / ISO9001 認證
2. 香港空氣淨化器中心: 室內空氣測試報告（香港）
3. LWAN: 室內空氣測試報告（香港）
4. 香港理工大學測試報告（催化過濾網）
5. 香港標準測試中心報告（催化過濾網）
6. 美國環境保護處（抗菌劑）
7. IAQ Consultant: 室內空氣測試報告（新加坡）

### “innoclean”空氣淨化器之 7 層標準的獨立過濾過程：

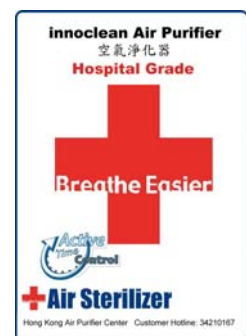
GS 抗菌前置過濾網，靜電過濾網，MnO<sub>2</sub> Carbon 過濾網，二氧化鈦納米光催化過濾網，IC Pro Cold Type 納米光催化過濾網；2 x 253.7nmUVC 燈和負離子發生器

### “innoclean”空氣淨化器之 6 層針對性的過濾過程

因爲不同的型號和設計，爲特別的需要，更設有其它的針對性解決污染問題的過濾網，例如 IC Pro 納米銀厘子抗菌過濾網；IC Pro 20mm 及 40mm 高密度過濾網-H13（EN1822）標準(醫療級)；專利的靜電過濾組件；獲專利的 MnO<sub>2</sub> 蜂窩式催化過濾網和獲專利的 IC ChemPro 化學物質催化過濾網；IC Pro 無機抗蟻虫 (Dust Mate) 過濾網

### 400 / 300 系列：

- 400 / 300 HealthPro
- 400 / 300 MultiTrap
- 400 / 300 SmokeTrap
- 400 / 300 Cleanroom
- 400 / 300 ChemPro HEPA
- 400 / 300 ChemPro EP
- 400 / 300 OdorVOC HEPA
- 400 / 300 OdorVOC EP



## “innoclean” Professional Feature / “innoclean”專業特點

### Individual Filtration Process /獨立過濾設計

#### “innoclean” 獨有設計: 全獨立式空氣淨化過程

靜電前置過濾網+抗菌過濾網(美國環境保護處認證的抗菌劑)+高密度過濾網(H13-EN1822 醫療級)+吸附炭過濾網+光催化過濾裝置+納米銀抗菌過濾網+化學物質過濾網+靜電除塵組件+253.7nm UVC 紫外線殺菌燈+負離子產生器

#### “innoclean”之各獨立式空氣淨化過程及功能：

1. 高效靜電前置過濾網吸附 65%0.1 微米的微塵
2. GS AEM5700 美國環境保護處認證) 抗菌前置過濾網作為殺菌和抗菌的初過濾網，主要功能是阻止細菌和病毒的滋生。
3. IC Pro 光催化和冷觸媒過濾網的功能是分解 VOC，HCHO 等有毒化學物，同時幫助殺菌和消毒。
4. MnO2 Carbon 過濾網吸收臭味及化學氣體。
5. IC Pro 高密度過濾網-H13 (EN1822) 功能是吸附小至 0.3 微米(相當於頭髮的 1/300 大小)的微粒，醫療級的設計，同時可以過濾我們周圍的大部分細菌。
6. 專利的靜電過濾組件的功能是捕捉小至 0.01 微米(相當於頭髮的 1/10,000)的微粒。最有效地去除煙霧，也可以有效地吸附我們周圍空氣中大部分病毒。
7. 裝有 2 支 IC Pro 13W 高效能 UVC (253.7nm 波長) 紫外線燈(平均紫外線強度：24,422 微瓦/平方釐米/紫外線燈：5,152 微瓦每秒/平方釐米)作為最後的保護，幫助最有效地殺菌和消毒達到 99%。配合專業設計之內置 UV 反射箱，使其大大提高一次性過濾殺菌(One Pass Killing Efficiency)之效果，相等於裝置一支 100W 或以上的紫外線燈之效果，但用電量及成本卻大大降低。
8. 獲專利的 MnO2 蜂巢催化過濾網的功能是消除異味和化學物質，比傳統的吸味炭過濾網的功效超出 5-10 倍，持久耐用，能使用達 3 年或以上。

9. 獲專利的 IC ChemPro 催化過濾網的功能是分解各種化學物，包括乙酸、丙酮、丙烯醛、丙烯腈、1,3 丁二烯、丁酸、二硫化碳、二氧化氯、甲酚、環己酮、二乙基氨基乙基、二甲胺、乙醇、乙酸乙酯、普通酒精、乙胺、蟻酸、氰化物橡膠基質、異丙醇、甲醇、乙酸甲酯等。
10. IC Pro 納米銀匣子抗菌過濾網的功能是有效地殺菌和阻止細菌和病毒的滋生，通過超強的氧化過程，銀匣子會分解大部分的細菌和病毒分子，最後破壞其細胞組織。
11. 負離子裝置是輸送新鮮的空氣到我們的環境，使我們感受到純淨的，新鮮的，精力充沛的野外般空氣。
12. IC Pro 無機抗蟻虫(Dust Mate) 過濾網是將空氣及環境中的蟻虫殺死，由於無機防蟻虫是矽酸鹽材質，不會揮發，較長的 期間都可以保持防蟻虫的效果。對人體無害。在密閉的空間也可以抑制蟻虫的增殖。且易於清洗，不需更換。

#### “獨立”式設計過濾網之好處：

- “獨立”式設計，對不同污染物能更針對性及更有效進行過濾
- \* 過濾物料可相應增加，從而增加整體過濾效能
  - \* 過濾網可獨立更換，不會造成浪費，更環保
  - \* 按不同過濾網本身的可使用時間，可獨立更換濾網，可使淨化器時刻保持良好過濾效能



全獨立式過濾網組合  
真正發揮空氣淨化效能



### Australia

室內空氣質素專家

“innoclean”空氣淨化器

醫療級-型號：400 / 300 系列

能制造正 / 負壓設計 (手術室要求)

使用 H13 級 EN1822 HEPA 過濾網

坐地或掛牆兩用

innoclean™



Hospital Grade



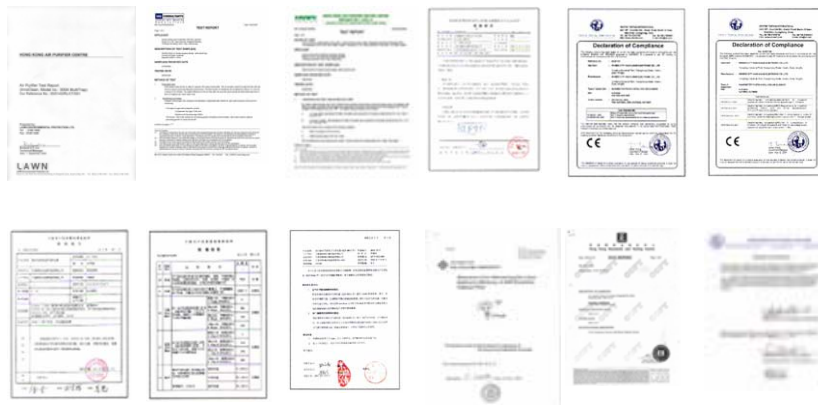
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## Different Testing Reports / 多個測試報告

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### 證書及測試報告：

- 1 CE / CQC / ISO9001 認證
- 2 香港空氣淨化器中心：室內空氣測試報告（香港）
- 3 LWAN: 室內空氣測試報告(香港)
- 4 香港理工大學測試報告(光催化過濾網)
- 5 香港標準測試中心報告(光催化過濾網)
- 6 美國環境保護處（抗菌劑）
- 7 IAQ Consultant: 室內空氣測試報告（新加坡）



多個權威性認證中心測試報告，證明有效控制室內空氣中的各種常見污染物，如細菌，病毒，塵埃，有害氣體，二手烟及臭味等。

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## H13 Grade (EN1822) HEPA / H13 Grade (EN1822)過濾網

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### H13 Grade – EN1822 Class HEPA Filter of “innoclean” Air Purifier

HEPA is a most common used air filter in air purifier design, its main function is to remove air dust particles. But different grades of HEPA will have different performance and efficiency. Basically, it is classified into Grade F, H and U, e.g. F7, F8..., H11, H12, H13..... or U15...etc... Efficiency from 95% to 99.999% etc...

Depends on different situation, environment or needs, we can use different grade of HEPA.

“innoclean” incorporates with H13 Grade HEPA, which is commonly used in cleanroom or hospital, which can capture up to 100 times of dust particles more than traditional air cleaner.

Traditional air cleaner may rated can remove dust particles size down to 0.3 microns, “innoclean” has been tested can remove dust particles size of 0.3 microns with over 99.97% (Filter) and over 95% (machine one pass efficiency). Complied with the Electrostatic Precipitator installed, “innoclean” has been tested can removal over 99% of 0.01 microns of dust particles (including Virus).

### What is machine one pass efficiency?

Most of the air cleaner manufacture rated that their machine can remove 99.97% of 0.3 microns dust particles, the reason is they have installed a HEPA inside the cleaner. Then, we should ask what's the grade of the HEPA? Is that the HEPA fit to be installed inside the machine? Any possibility of air leakage?

The fact is that most of the air cleaner's HEPA installation on market is not really fit to the cleaner, the result is decrease the machine one pass efficiency of dust particles finally, although a very little air leakage, most of the dust particles will direct pass though the machine from the air leakage. It means that bacteria and virus will also direct pass though the machine from the air leakage. The truth is most of the air cleaner's one pass efficiency on market may just have 10% or 20%.

**TRUE HEPA  
99.97%**

**“innoclean”  
HEPA Filter**

**UV Reflection Chamber / 紫外線反射箱設計**

What's the function of UV Light Reflection Chamber

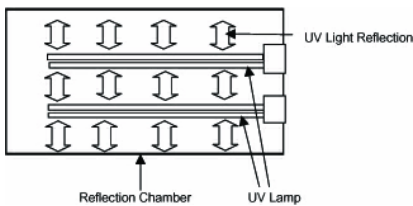
The Reflection Chamber worked as a media to increase the "Intensity" of UV light, means that it can increase the power for killing of bacteria & virus.

Feature of the UV Light Reflection Chamber of "innoclean"

It can ensure that all air pass through the chamber with have a even UV Intensity to treat the air, it can increase the "One Pass Killing Efficiency" of the air purifier.

What's the difference of a air purifier with and without using reflection.

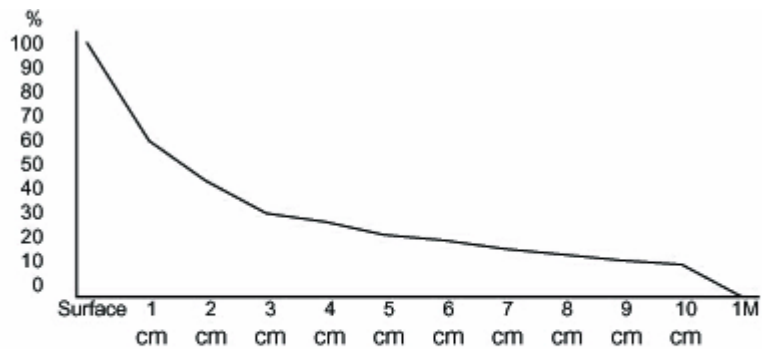
If 2 air purifiers with same power of UV lamp installed, the total bacteria & virus kill efficiency of the air purifier with using reflection theory will have much times better than the air purifier without using reflection theory.



How "innoclean" with UV Light Reflection Chamber better than others.

We should know that the further away from the surface of the UV lamp, the less intensity (Power) and the less efficiency the UV lamp output is:

All UV lamp on market will have the same feature as above. The following is the table show the intensity (power) decrease rate with distance.



The output intensity (power) of the UV lamp decrease as follows:

- 1 cm away from the UV lamp, will lost 40% of the intensity.
- 2 cm away from the UV lamp, will lost 60% of the intensity.
- 3 cm away from the UV lamp, will lost 70% of the intensity.
- 1 Meter away from the UV lamp, will nearly lost All of the intensity.



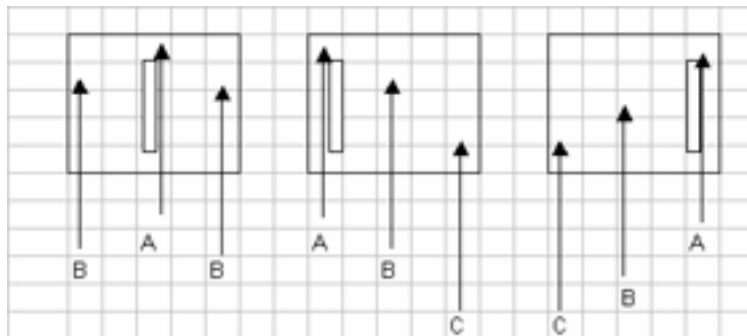
400 反射箱

300 反射箱

**Advance Technology  
Advance Design**

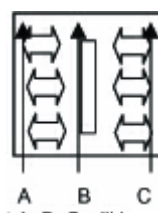
**"innoclean" UV  
Reflection Chamber  
400 & 300 Series**

If a air purifier installed a UV lamp without reflection:



Point A will have best efficiency; Point B will have normal efficiency; Point C will have less efficiency

If a air purifier installed a UV lamp with reflection - "innoclean"



Point A, B, C will have even efficiency and also much times increased of the intensity by reflection.



**FlexVent / 伸縮喉連接器**

**InnoClean 400A Series with "FlexVent"**

"FlexVent" is a flexible air duct adaptor installed with the 400 air purifier, which is coated with "Germ Shield" Antimicrobial Coating to provide long time Antimicrobial purpose (AEM5700 – EPA registered).

“FlexVent”及連接 400 系列之伸縮喉連接器，並塗上"Germ Shield" 抗菌塗層，提供長時間抗菌作用 (AEM5700 – 美國環保處註冊)

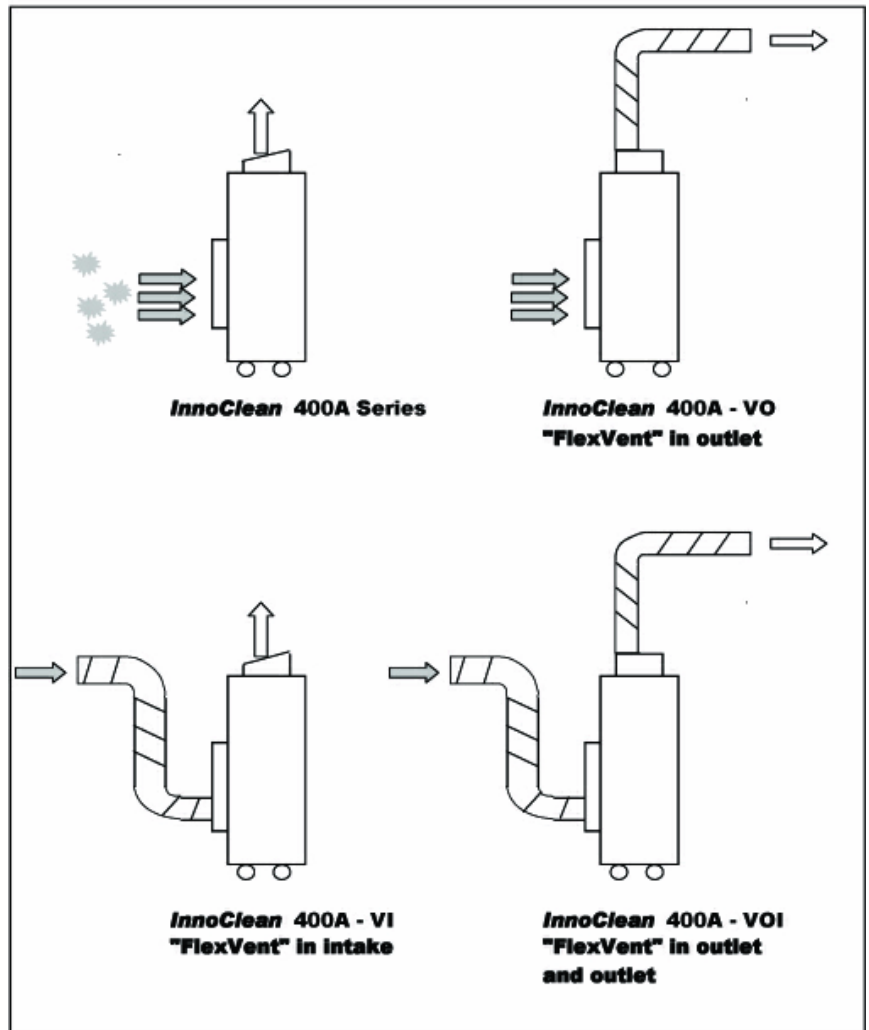
**Function:**

- 1/. Prevent Cross-contamination: Collect the pollutant air at a specific area for purification directly.
- 2/. Create "Negative Pressure": Direct the purified air outside the room.
- 3/. Create "Positive Pressure": Direct and purify the outside air inside the room.

**用途:**

- 1/. 直接針對污染物來源地方，吸取污染物並進行過濾，防止交叉感染
- 2/. 使房間產生“負氣壓” – 將淨化後之空氣排出室外（適合病房或治室）
- 3/. 使房間產生“正氣壓” – 抽進室外之空氣，經淨化後送進室內（適合術室或無塵房）

**InnoClean 400A Series with "FlexVent"**



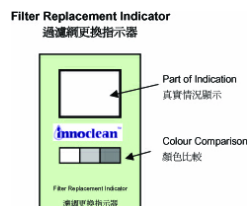
**Filter Replacement Indicator / 過濾網更換指示器**

The most accuracy and direct method to indicate the real situation of the filter in your environment. Stick it at the air intake of the machine, monitor the result of the colour change and compare with the label on the indicator.

Most of the design on market which always use a "Timer" to tell you the filter replacement time. Actually, it is not the real situation in your environment, we should understand that different environment and pollutant content

will get different time need to be replace, just depends on the "Timer", the filter will be sometimes become wastage, or sometimes will become overload and affect the filtration performance or damage the machine.

採用最準確且直接之方法來提示你的淨化器過濾網之更換時間。把指示器貼在淨化器之進風口，留意指示器之顏色變化及對比指示器上之標準。



面上大部份淨化器之過濾網更換提示均以“時間制”方式設計，但該種設計並不能反映你真實的情況，因不同環境的污染程度有所不同，單憑這種提示，不是造成浪費則過濾網早以失效，且不能提供淨化，嚴重情況更會損壞淨化器。

## Nano Photocatalytic Oxidizing (PCO) / 納米光觸媒 / 光催化

“innoclean” 400 及 300 係列廣泛應用了光催化之原理於淨化過程中

### The Theory of Nano Photocatalytic Oxidizing

納米光觸媒 / 光催化之原理

光觸媒 (TiO<sub>2</sub>) 就是在光參與下發生反應的催化劑。光觸媒 (TiO<sub>2</sub>) 在光作用下能產生超乎一般化學氧化劑氧化能力的空穴/電子對，能把有機物徹底氧化為 CO<sub>2</sub> 和 H<sub>2</sub>O，從而徹底消除污染，由於細菌和病毒也都為有機微生物，故也能將之徹底殺滅。

所謂的催化劑，就是指在化學反應時自身不起變化，而作為其他物質的媒介使化學反應速度加快或者減緩反應速度的物質。光催化劑是受光以後開始起作用的催化劑

TiO<sub>2</sub> + Light >>> Organic Compound  
>>> CO<sub>2</sub> + H<sub>2</sub>O

光觸媒 + 光 >>> 有機微生物 >>>  
二氧化碳 + 水

### Function of Nano Photocatalytic Oxidizing

納米光觸媒 / 光催化之功能

#### 淨化空氣功能

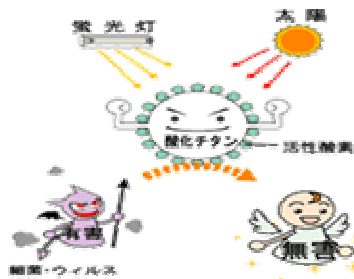
因 TiO<sub>2</sub> 所產生的氫氧自由基會先行破壞有機氣體分子的能鍵，使有機氣體成為單一的氣體分子，加快有機物質、氣體的分解，將空氣中的甲醛、苯等各種有機物、氮氧化物、硫氧化物以及氨等氧化，還原成為無害物質。它可將人體臭、動物臭及煙味去除，淨化空氣。光觸媒氧化鈦在接觸光時，能發揮消臭、抗菌、防汗等優良性能，尤其是在解決大氣環境惡化、新型建築材料及傢俱中的化學物質對室內環境的影響、汽車尾氣產生的大氣污染等問題時，受到了人們的歡迎。

#### 除臭功能

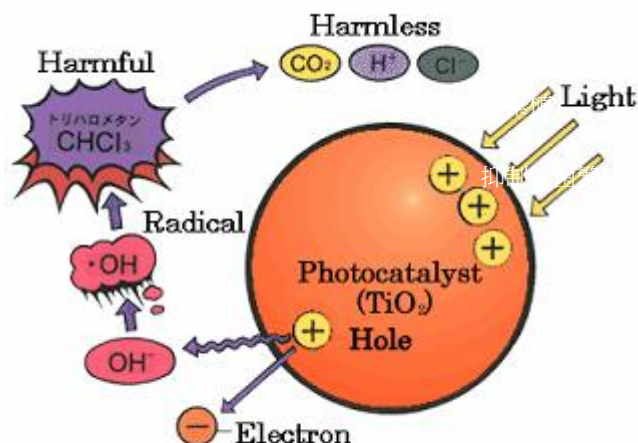
二氧化鈦 TiO<sub>2</sub> 比臭氧 (O<sub>3</sub>)、負離子，有更強的氧化能力；比活性碳、HEPA 有更強的吸附力，亦具有活性碳、HEPA 所沒有的分解功效（分解細菌和有毒有害物質）。

#### 抗菌功能

以 TiO<sub>2</sub> 的超氧化能力破壞細胞的細胞膜使細胞質流失導致細菌死亡，可抑制大腸桿菌、金黃色葡萄球菌等細菌的繁殖。



“innoclean” 光觸媒過濾網



## “Certificate of Quality Performance” and “IAQ Improvement Label” / “質量保證”證書及“IAQ 改善標籤”

All “innoclean” 400 & 300 air purifier will included individual and signed “Certificate of Quality Performance” and “IAQ Improvement Label”

“Certificate of Quality Performance” as the certificate to certify the machine was tested and with the good performance both on operation and efficiency before delivery.

“IAQ Improvement Label” as the label for end user to display on the area that let all visitor can easy to see it.

所有“innoclean” 400 & 300 系列之空氣淨化器均附有獨立且簽署之“質量保證”證書及“IAQ 改善標籤”，

“質量保證”證書以確保及證明該空氣淨化器已對操作及效能兩方面進行送貨前檢查。

“IAQ 改善標籤”用作於讓使用者貼於淨化器所在處，給每個訪客或在場員工 / 人仕等容易看到，得知該身處地方已加設室內空氣改善設施

### “IAQ Improvement Label”



### “Certificate of Quality Performance (Individual and signed)”

## Multi-function / 多功能設計

In conclusion of that there are 4 main types of indoor air pollutants. They are: Bacteria & Virus, Suspended particles, Chemical Substance and Odor. If an air purifier can solve the above 4 types of pollutants, then the air purifier can be say as a “Multi-function” design.

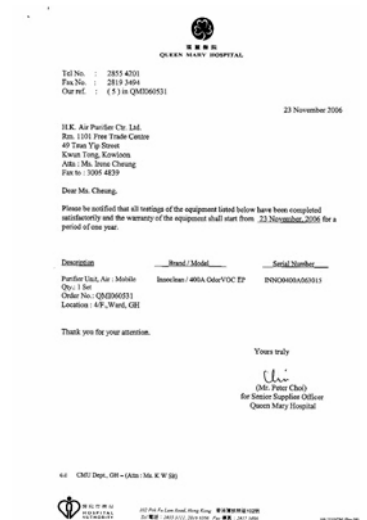
“innoclean” 400 & 300 series was base on the above criteria to develop. The main difference of “innoclean” from another air purifier is her “Individual Filtration Process”, completed with another special and patented design eg. UV reflection chamber, FlexVent, Filter Replacement Indicator, Wall Mount Kit and H13 Grade True HEPA etc... It make “innoclean” be recognized as a “Hospital Grade” air purifier, widely use in different hospital, and get the “Testing Satisfactorily Letter” from “Queen Mary Hospital – Hospital Authority of HKSAR”.

“innoclean” 400 & 300 series, 8 different models is specially design for different environment and different needs, strive to provide “Focusing Solution Method” for different customer.

總結起來，室內空氣的常見污染物可分為 4 大類：細菌及病毒(Bacteria & Virus)，懸浮粒子(Suspended particles)，有害化學物質 (Chemical Substance)及異味(Odor)。如一部空氣淨化器能同時可解決以上 4 種問題，這才算是“多功能”設計。

“innoclean” 400 & 300 系列之空氣淨化器則按以上之原則研制，與市場上其它聲稱“多功能”的機種不同，“innoclean”全係採用“獨立式”過濾網，每種過濾網都有其獨特之處，“針對性解決每種問題。配合其它專業設計如 UV 反射箱，FlexVent, Filter Replacement Indicator, Wall Mount Kit 及 H13 級 (EN1822) True HEPA 等，使“innoclean”被示為“醫療級”級數之空氣淨化器，從而被廣泛應用於多間醫院，更獲得“香港醫院管理局 – 瑪麗醫院”發出之“測試滿意確認信”。

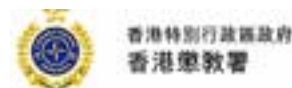
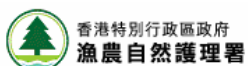
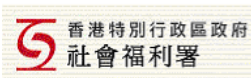
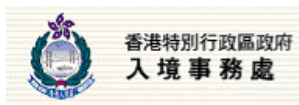
同時，“innoclean” 400 & 300 系列之 8 個不同型號，更是為了不同環境之不同需要而設計，提供“針對性”之解決方案。



“Testing Satisfactorily Letter” from “Queen Mary Hospital” “Hospital Authority” of HKSAR “測試滿意確認信”由“香港醫院管理局 - 瑪麗醫院”發出

“innoclean” - Job reference support (Hong Kong) / 多個客戶支持(香港)

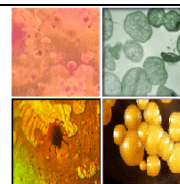
Part of existing user / 部份已使用者



“Testing Satisfactorily Letter” from “Queen Mary Hospital” - “Hospital Authority” of HKSAR  
“測試滿意確認信”由“香港醫院管理局 - 瑪麗醫院”發出

## “innoclean” can kill bacteria & virus

The power of the UVC Sterilizing Lamp in “innoclean”, completed with the patented design of UV Reflection Chamber, it make “innoclean” could provide a powerful dosage (energy) to kill different kind of bacteria and virus in “One Pass”.



<b>BACTERIA</b>	Comment	UVC - LETHAL DOSE need to kill the organism (microWatt.sec/cm2)	No. of air change
Bacillus anthracis		1960	1
Bacillus magaterium sp.	Spores	1190	1
Banillus magaterium sp.	Veg.	565	1
Bacillus subtilis		2500	1
Corynebacterium dephteriae		1460	1
Eberthella typosa		930	1
Escherichiae coli		1300	1
Leptospira Canicoal	Infections Jaundice	1370	1
Micrococcus candidus		2630	2
Micrococcus spheroides		430	1
Myrobacterium tuberculosis		2700	2
Neisseria catarrhalis		1900	1
Phtomonas tumeficiens		1900	1
Proteus vulgaris		1300	1
Pseudomonas aeruginosa		2400	1
Pseudomonas fluorescens		1520	1
Salmonella enteritidis		1740	1
Salmonella paratyphi	Enteic fever	1390	1
Salmonella typhosa	Typhoid fever	935	1
Salmonella typhimurium		3470	2
Serratia marcescens		1050	1
Shigella dysenteriae	Dysentery	960	1
Shigella flexneri	Dysentery	740	1
Shigella paradysenteriae		730	1
Spirillum rubrum		1900	1
Staphylococcus albus		800	1
Staphylococcus aureus		1130	1
Streptococcus hemolyticus		940	1
Streptococcus viridans		870	1
Vibrio comma	Cholera	1470	1
<b><u>MOLD SPORES</u></b>			
Oospora lactis	White color	2200	1
Penicillium expansum	Olive color	1300	1
<b><u>PROTOZOA</u></b>			
Nematode	Eggs	1740	1
Paramecium		4780	2
<b><u>VIRUS</u></b>			
Bacteriophage	E.Coli	1130	1
Infectious Hepatitis		2520	1
Influenza	Common flue	1480	1
Poliovirus - Poliomyelitis		1370	1

Over 95% of the above bacteria & virus would be kill in “One Pass” through “innoclean”

## Standard Filtration design / 標準過濾組件設計

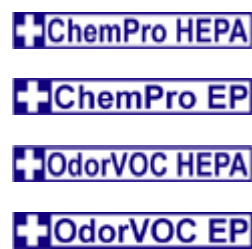
3 Series / 3 個系列



Each series get 8 Model:



每個系列均有 8 個型號



此系列的「醫療級」空氣淨化系統能適應不同的室內空間用途及面對的污染問題的真正需要，以「針對性」的解決方法以改善室內空氣質素。故設計出 8 個不同型號，每個不同型號均有其獨特之過濾設計。但亦有其共同之配備：

- 1/. 兩組高效能 UVC (253.7nm) 紫外光燈，並配合精心設計的內置“反射箱”，能殺滅空氣中的細菌及病毒，效能達 99%，大大提高一次性過濾殺菌 (one pass killing efficiency) 效果，且用電量卻可大大降低
- 2/. IC Pro 光催化及冷觸媒過濾層能分解如 VOC、HCHO 等有毒化學物，同時能幫助消毒及殺菌

3/ 專利 MnO<sub>2</sub> Carbon 混合式過濾網催化過濾網，能清除各種異味及有害化學物質，功效比活性炭過濾網高出 4-5 倍

- 4/. 獨有的滾輪設計，可自由移動。每當某地方有緊急需要時可即時移至使用，節省空間及成本
- 5/. 渦輪式抽氣風扇設計，相比傳統扇葉，能令抽風量倍增，但更寧靜及節省能源
- 6/. 負離子釋放系統能令室內空氣更清新，使我們更精力充沛，如置身於野外
- 7/. 抗菌前置過濾網及靜電過濾網，可吸附 0.1 微米的微塵(如二手煙之微粒，並可阻止細菌及病毒的滋生
- 8/. 搖控器. 時間設置及風量調節

Standard filtration design in 8 different models:

Electrostatic Pre-filter  
Antimicrobial Filter (EPA – US Registered Coating)  
Photo Catalytic Filter Set  
MnO<sub>2</sub> Catalytic Carbon Filter  
UVC Sterilizing Lamp  
Anion Generation

Timer Setting + Remote Control + 3 Speed Setting + Movable Roller + LED Display + Safety Door Lock

## Specific Filtration design / 不同型號之獨特過濾組件設計

因應其不同型號，除標準過濾組件外，均配其以下之獨特過濾設計：

- 1/. H13 級 (EN1822)「醫療級」之一組獨立式高密度過濾網 (HEPA Filter)，能過濾小至 0.3 微米 (頭髮直徑 1/300 大小) 之懸浮粒子，並同時過濾大部份的細菌
- 2/. 靜電集塵系統，能捕捉空氣中小至 0.01 微米 (約頭髮直徑 1/10,000 大小) 的煙塵微粒如煙霧類的污染物甚至病毒，最適合用於吸煙房間
- 3/. “iAiR” 專利 MnO<sub>2</sub> 蜂巢式催化過濾網，能清除各種異味及有害化學物質，功效比活性炭過濾網高出 4-5 倍，且持久耐用，長達數年

- 4/. 抗蟎蟲 (Dust Mate) 過濾網可將空氣中的蟎蟲殺菌，並抑制其繁殖
- 5/. IC ChemPro 催化過濾網能有效分解各種化學物質
- 6// 納米銀離子(Nano-Silver)抗病毒及細菌，可殺絕及抑制病毒及細菌生長



全獨立式過濾網組合  
真正發揮空氣淨化效能

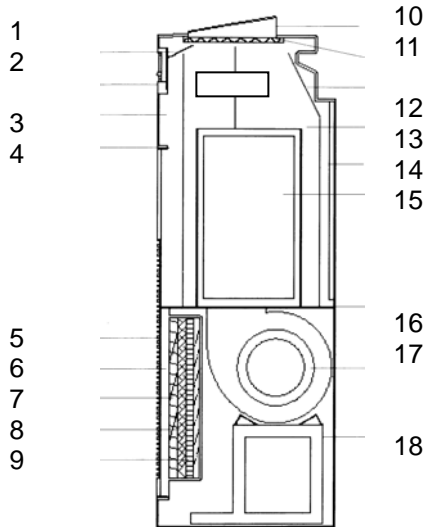
Completed with the standard filtration parts, different models would consist the following special designed parts:

H13 Grade (EN1822) True HEPA  
Electrostatic Precipitator  
Patented MnO<sub>2</sub> Catalytic Filter  
Anti – Dustmate Filter  
IC Pro Chemical Filter  
Antimicrobial Nano-Silver Filter

“Individual”  
Filtration Process  
by “innoclean”

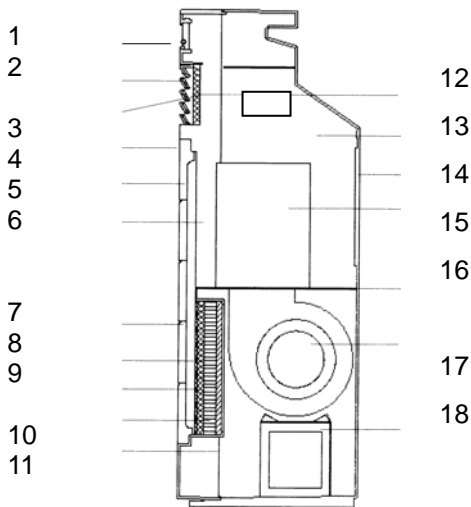
## Structure / 結構

### InnoClean 400A Series



- 1 Anion Generator
- 2 LED Display Panel
- 3 Air Outlet
- 4 Safety Door Lock
- 5 Antimicrobial Air Intake Cover
- 6 Electrostatic Pre-Filter
- 7 (Depend on model)
- 8 (Depend on model)
- 9 (Depend on model)
- 10 Antimicrobial Air Outlet
- 11 MnO<sub>2</sub> Carbon Filter
- 12 UVC Sterilizing Lamp
- 13 Antimicrobial Vent Duct
- 14 Back Cover
- 15 PCO Chamber
- 16 Support Plate
- 17 Fan
- 18 Support Frame

### InnoClean 300 Series



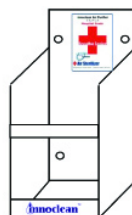
- 1 LED Display Panel
- 2 Anion Generator
- 3 Air Outlet
- 4 Safety Door Lock
- 5 Antimicrobial Air Intake Cover
- 6 Front Cover
- 7 Antimicrobial Pre-Filter
- 8 Electrostatic Pre-Filter
- 9 (Depend on model)
- 10 (Depend on model)
- 11 (Depend on model)
- 12 MnO<sub>2</sub> Carbon Filter
- 13 UVC Sterilizing Lamp
- 14 Back Cover
- 15 Antimicrobial Vent Duct
- 16 Support Plate
- 17 Fan
- 18 Support Frame

## Wall Mount Kit / 掛牆套裝

Installed with a Wall Mount Kit, "innoclean" 400&300 would be easily mounted on wall. Constructed with Aluminum metal and coated with anti-corrosion paint in white colour

配合掛牆套裝, "innoclean" 400 及 300 將可輕易掛在牆上. 鋁金屬製造及焗上防銹白色油, 使其更輕更美觀.

"innoclean" 400 & 300 Series Wall Mount Kit



## Standard Specification / 標準規格

Model	400 & 300 Series
Power requirement	220V / 50Hz (60Hz) / (110V Options)
Power consumption	MAX: 50W
Noise level	< 50 dB (Max.)
Negative ion output	1 x 10 <sup>6</sup> /cm <sup>3</sup>
<u>Display panel</u>	
LED Icon	YES
<u>Remote Control</u>	
Ultra Remote Control	YES
<u>Function settings</u>	
Fan speeds	L / M / H
<u>Timer</u>	
Timer Setting	1 hr / 2 hrs / 4 hrs
<u>Safety Door Lock</u>	
Door Lock for Front Cover	YES
<u>Roller</u>	
Easy Movable Roller	YES
<u>Colour / Dimensions / Weight</u>	
Dimensions (H x W x C) mm	850mm x 400mm x 290mm
Weight	15kg
FREE Warranty	1 year including parts
Limited Warranty	Life Warranty
<u>Accessories</u>	
Filter Replacement Indicator	YES
Quality Performance Certificate	YES
IAQ Improvement Label	YES
2 meters electrical cable	YSE
<u>Optional Accessories</u>	
Wall Mount Frame	For wall mount purpose
FlexVent – IN / Out	For creation of Positive or Negative Pressure

Standard specification and Accessories for all 400&300Series, 8 different model

“innoclean” 400 及 300 系列, 8 個不同型號之標準規格及配置

**+HealthPro**

**+MultiTrap**

**+SmokeTrap**

**+Cleanroom**

**+ChemPro HEPA**

**+ChemPro EP**

**+OdorVOC HEPA**

**+OdorVOC EP**



## 8 Different Models / 8 款不同型號



With "IC Pro Anti-Dustmate Antimicrobial Filter" to remove mold spore, dustmate in your environment, prevent allergy and improve the indoor air quality inside your home, protect your family member with a Hospital Grade air purifier..

### Other Function:

Removes airborne pollutants, including fine dust particles pollen, unpleasant smells, toxic gas, chemical e.g. most common VOC & formaldehyde, mold spore, fungi, dust mate, and also Bacteria & Virus.

### Suitable area:

General Home and Office area

配備 IC Pro 抗蟎蟲 filter, 能有效殺死空氣中的蟎蟲及防止其繁殖, 預防過敏証如皮膚敏感或氣管敏感等. 能有效改善空氣質素, 並保障你家居的每位成員.

其它功能: 減少空氣中之污染物如: 塵埃, 異味, 有害物質如: 有機揮發物, 鉀醛及砒等, 更能去除霉孢子, 蟎蟲, 細菌, 真菌及病毒等

適用地方:  
一般家居或寫字樓



蟎蟲(Dust Mate)

居家空氣中漂浮的塵埃是過敏原, 1694 年荷蘭人 Antoni Van Leeuwenhoek 最早發現蟎類存在於塵埃中。1964 年 Voorhorst etal 驗證了塵埃裏的室塵蟎才是過敏性氣喘的真正元兇。

您知道嗎?

地毯上 1 平方米上的蟎蟲數 表面: 29,688 隻; 內部: 484,650 隻

屬於室塵蟎科的粉塵蟎、腐食酪蟎是非常容易引起變態反應(過敏)的原因。粉蟎科的蟎蟲在世界範圍廣泛分佈, 如日本、印度、歐洲、美國等均非常普遍地分佈存在。這些蟎蟲以花粉、微生物孢子、細菌、黴菌系、植物性纖維、動物的皮膚脫落物如頭皮污垢、鳥的羽毛等作為營養物質, 在地毯、沙發、床、衣服等, 人類的生活中環境中大量的生存。

### 蟎蟲的影響

變態反應(過敏)哮喘、結膜炎, 特應性皮炎、鼻炎

### "innoclean" 400 及 300 HealthPro 採用之 IC Pro Anti Dust Mate

Antimicrobial Filter 配合無機防蟎劑之防蟎原理:

無機防蟎劑的防蟎原理是: 蟎蟲接觸了防蟎劑以及用口攝取後, 其中的硼酸成分發生作用, 產生脫水症狀。這一變化並非急速發生, 而是緩慢地進行。如圖所示蟎蟲的背部及腹部凹下, 使生殖行為變得衰弱, 從而減少蟎蟲的增殖行為。

由於無機防蟎劑是矽酸鹽材質, 不會揮發, 較長的 期間都可以保持防蟎的效果。無機防蟎劑並非如同以往的有機系防蟎劑, 驅蟲劑等一樣以神經毒來殺死蟎蟲, 並且揮發出蟎蟲討厭的氣味來驅趕, 而是破壞蟎蟲的水分調整平衡, 使其處於乾燥狀態, 而削弱蟎蟲的繁殖能力, 抑制其增長繁殖。不但如以往的有機系防蟎劑, 驅蟲劑等一樣有作用, 而且無揮發成分, 對人體無害。在密閉的空間也可以抑制蟎蟲的增殖。

<u>Air flow rate</u>	
400A HealthPro	400 M3/Hr
300A / 300B HealthPro	300 M3/Hr
Service Area (ft.2)	Up to 1,500 (400A) / 1,200 (300A/B)
	<u>400A HealthPro</u> <u>300A / B HealthPro</u>
Service Area @ 1,500 ft.2	< 60 min.                      < 80 min
Service Area @ 1,200 ft.2	< 45 min.                      < 60 min
Service Area @ 800 ft.2	< 30 min.                      < 40 min
Service Area @ 400 ft.2	< 15 min.                      < 20 min
Service Area @ 200 ft.2	< 8 min.                        < 10 min
<u>Pollutant removal capability</u>	
Microorganism removal	98.9%
VOC removal	96.2%
Formaldehyde removal	95.5%
Benzene removal	85%
0.3 micro-meter Dust removal	98.60%
0.1 micro-meter Dust removal	65.9%
General Odor removal	80%
Cigarette Smoke removal	72%
<u>Main Filtration Parts</u>	
Electrostatic Pre-filter	YES
Antimicrobial Pre-filter	YES
True HEPA Filter	YES
Photo catalyst Chamber	2 PCO Filters
Anti-Dustmate Filter	YES
MnO2 Catalytic Carbon Filter	YES
253.7 nm UVC Sterilizing Lamp	2 UV Lamps
Anion Generator	YES
Colour	
400A	(Pearl White)
300A	(Blue White)
300B	(Silver White)

## 8 Different Models / 8 款不同型號



With “IC Pro Nano-Silver Antimicrobial Filter” to empower the efficiency of bacteria & virus kill in your environment, prevent cross-contamination and improve the indoor air quality inside your environment, protect you and your colleague with a Hospital Grade air purifier..

### Other Function:

Removes airborne pollutants, including fine dust particles pollen, unpleasant smells, toxic gas, chemical e.g. most common VOC & formaldehyde, mold spore, fungi, Bacteria & Virus.

### Suitable area:

Office, Factory, School, Elderly Home, Pet Shop and Restaurant etc...

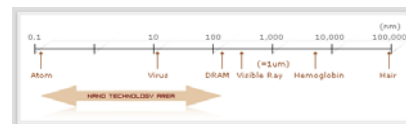
配備“IC Pro 納米銀離子”抗菌及病毒 filter, 能有效殺死空氣中的細菌及病毒及防止交叉感染, 有效改善空氣質素, 並保障你及寫字樓內每位成員.

其它功能: 減少空氣中之污染物如: 塵埃, 異味, 有害物質如: 有機揮發物, 鉀醛及砒等, 更能去除霉孢子, 細菌, 真菌及病毒等

適用地方:

一般寫字樓, 工廠, 學校, 老人院, 寵物店及酒樓等...

Nano particles can be observed only through TEM or SEM microscope.



**Nanotechnology**, simply put, is the creation of materials at the near-atomic, or nanometer, level. 1nm is one hundredth of the thickness of a typical hair strand, which is about the size of 3 or 4 atoms.

**Nanotechnology** makes it possible to manipulate materials at a molecular or even atomic level. Materials that are at the nanometer level exhibit new unique properties, which could create a range of high value commercial and industrial applications.

### Silver

has been recognized as one of the most antibiotic substances known in human history. Silver is an element and presents in nature. It is non toxic, non allergic and non cumulative. Hence it is not harmful to wildlife and environment. Silver appears to be a powerful, natural antibiotic and preventative against infections. Acting as a catalyst, it reportedly disables the enzyme that one-celled bacteria, viruses and fungi need for their oxygen metabolism.

They suffocate without corresponding harm occurring to human enzymes or parts of the human body chemistry. The result is the destruction of disease-causing organisms in the body and in the food.

Used for medical treatment of human ailments for over 100 years for its natural antibacterial, antifungal and nontoxic properties.

NASA uses it in water purification systems for the space shuttle.

Kills over 650 different bacterial species in minutes (*basically all types of bacteria*).

### Nanosilver

is active against most pathogens, yeasts, fungi, mould and mildew. Nano-silver is used as antimicrobial substance to provide effective and complication free treatment for aged old healthcare problems.

<u>Air flow rate</u>		
400A MultiTrap	400 M3/Hr	
300A / 300B MultiTrap	300 M3/Hr	
Service Area (ft.2)	Up to 1,500 (400A) / 1,200 (300A/B)	
	<u>400A MultiTrap</u>	<u>300A / B MultiTrap</u>
Service Area @ 1,500 ft.2	< 60 min.	< 80 min
Service Area @ 1,200 ft.2	< 45 min.	< 60 min
Service Area @ 800 ft.2	< 30 min.	< 40 min
Service Area @ 400 ft.2	< 15 min.	< 20 min
Service Area @ 200 ft.2	< 8 min.	< 10 min
<u>Pollutant removal capability</u>		
Microorganism removal	99.5%	
VOC removal	96.2%	
Formaldehyde removal	95.5%	
Benzene removal	85%	
0.3 micro-meter Dust removal	98.60%	
0.1 micro-meter Dust removal	65.9%	
General Odor removal	80%	
Cigarette Smoke removal	72%	
<u>Main Filtration Parts</u>		
Electrostatic Pre-filter	YES	
Antimicrobial Pre-filter	YES	
True HEPA Filter	YES	
Photo catalyst Chamber	2 PCO Filters	
Nano-Silver Antimicrobial Filter	YES	
MnO2 Catalytic Carbon Filter	YES	
253.7 nm UVC Sterilizing Lamp	2 UV Lamps	
Anion Generator	YES	
Colour		
400A	(Pearl White)	
300A	(Blue White)	
300B	(Silver White)	

## 8 Different Models / 8 款不同型號

### SmokeTrap

With "IC Pro MnO2 Carbon Filter" & Electrostatic Precipitator to remove cigarette smoke's particles (up to 0.01 micro-meter – 1/10,000 of human hair), chemical & smell in your environment, protect you far away from smoke hazard and improve the indoor air quality inside your environment, protect you and your colleague with a Hospital Grade air purifier..

#### Other Function:

Removes airborne pollutants, including fine dust particles pollen, unpleasant smells, toxic gas, chemical e.g. most common VOC & formaldehyde, mold spore, fungi, Bacteria & Virus.

#### Suitable area:

Smoking room, conference room, waiting area, bar and Restaurant etc...

配備"IC Pro Catalytic MnO2 Carbon filter 及靜電除塵組件, 能有效去除二手煙所產生之3大污染物: 微粒(少於 0.01 微米, 可吸入肺內 – 1/10,000 of human hair); 有害化學物(包含數千種)及異味. 有效改善空氣質素, 並保障你及每位在場人仕.

其它功能: 減少空氣中之塵埃, 異味, 有害物質如: 有機揮發物, 鉀醛及砒等, 更能去除霉孢子, 細菌, 真菌及病毒等

#### 適用地方:

吸煙房, 會議室, 等候室, 酒吧及酒樓等...



Carbon (活性碳)是一種吸收效能非常高的物質, 已被廣泛應用於除味及除有害化學物之各種產品上, 它的特性是以不斷吸收之原理, 並將其保存於本身物質內, 但它的缺點是本身物質會很快"飽和", 從而失去作用.

MnO2 (二氧化錳)本身常被作為一催化物質, 物質本身不易被捐耗, 能快速及有效地分解有害物質, 如不同之有機揮發物(VOC – 二手煙所產生之有害物質), 而大部份之有機揮發物當被分解後便不再產生異味及對人無害. 而使用 MnO2 物質而制造之空氣過濾 filter 更於世界各地開始廣泛使用, 一般為針對惡臭之地方, 如: 污水處理廠, 垃圾站及廁所等...

而"IC Pro Catalytic MnO2 Carbon filter 則結合 MnO2(二氧化錳)及 Carbon(活性碳)於一身, 採用吸收及催化作用共同提供淨化效果, 不但大大提高淨化效能, 同時因 MnO2 本身物質之催化原理, 更能不斷分解 Carbon 本身已所吸收之物質, 使其使用時間可再度增長. 結果"IC Pro MnO2 Carbon" filter 不但效能比一般只用 Carbon 之 filter 效能高(一般為 4 – 5 倍), 且使用時間更長(一般為 3 – 4 倍).

#### 靜電除塵組件

為一金屬制之過濾組件, 由金屬線及金屬片組成. 使用產生高電壓之過程, 使空氣中的塵埃能以正負電磁相給之原理下使其被緊緊地吸到金屬片上, 連少於 0.01 微米之塵埃 (如二手煙之微粒)也被有效地吸收.

配合靜電除塵組件, 能有效去除二手煙所產生之微粒(少於 0.01 微米, 可吸入肺內). 使"innoclean" 400 及 300 SmokeTrap 能有效解決二手煙所產生的所有問題.

**Total Solution  
To Remove  
Cigarette Smoke's**

- Particles !
- Chemical
- Smell

#### Air flow rate

400A SmokeTrap	400 M3/Hr	
300A / 300B SmokeTrap	300 M3/Hr	
Service Area (ft.2)	Up to 1,000 (400A) / 800 (300A/B)	
	<u>400A SmokeTrap</u>	<u>300A / B SmokeTrap</u>
Service Area @ 1,000 ft.2	< 50 min.	< 60 min
Service Area @ 800 ft.2	< 40 min.	< 50 min
Service Area @ 600 ft.2	< 30 min.	< 35 min
Service Area @ 400 ft.2	< 25 min.	< 25 min
Service Area @ 200 ft.2	< 10 min.	< 15 min

#### Pollutant removal capability

Microorganism removal	98.5%
VOC removal	98.9%
Formaldehyde removal	95.5%
Benzene removal	85%
0.3 micro-meter Dust removal	98.60%
0.1 micro-meter Dust removal	97.9%
General Odor removal	80%
Cigarette Smoke removal	98%

#### Main Filtration Parts

Electrostatic Pre-filter	YES
Antimicrobial Pre-filter	YES
True HEPA Filter	YES
Photo catalyst Chamber	2 PCO Filters
MnO2 Catalytic Carbon Filter	2 Filters
253.7 nm UVC Sterilizing Lamp	2 UV Lamps
Anion Generator	YES
Colour	
400A	(Pearl White)
300A	(Blue White)
300B	(Silver White)

## 8 Different Models / 8 款不同型號

### **+** Cleanroom

With "H13 Grade 40mm TRUE HEPA Filter" could effective to remove 99.97% of 0.3 micro-meter (1/300 of human hair) fine particles. Being of most of the bacteria & virus are commonly stick with particles on air, then this model would also effective to remove dust, mold spore, allergy, and different kind of bacteria & virus. And improve the indoor air quality inside your environment & prevent cross-contamination.

#### Other Function:

Removes airborne pollutants, including fine dust particles pollen, unpleasant smells, toxic gas, chemical e.g. most common VOC & formaldehyde, mold spore, fungi and also Bacteria & Virus.

#### Suitable area:

Hospital, clinic, cleanroom and where need high hygiene requirement etc...

配備"H13 Grade TRUE HEPA Filter", 能有效去除空氣中之微粒(少於 0.3 微米 – 1/300 一般人之頭髮); 而因一般細菌及病毒常會依附於空氣中的微粒上, 所以"innoclean" Cleanroom 同時也可大量減少空氣中的各種細菌及病毒. 有效改善空氣質素及防止交叉感染, 並保障你及每位在場人仕.

其它功能: 減少空氣中之污染物如: 塵埃, 異味, 有害物質如: 有機揮發物, 鉀醛及砒等, 更能去除霉孢子, 細菌, 真菌及病毒等

適用地方: 醫院, 診所, 淨化室或任何地方需要保持極高衛生要求等...



### H13 Grade – EN1822 Class HEPA Filter of "innoclean" Air Purifier

HEPA is a most common used air filter in air purifier design, it main function is to remove air dust particles. But different grades of HEPA will have different performance and efficiency. Basically, it is classified into Grade F, H and U, e.g. F7, F8..., H11, H12, H13.. or U15...etc... Efficiency from 95% to 99.999% etc...

"innoclean" incorporates with H13 Grade HEPA, which is commonly used in cleanroom or hospital, which can capture up to 100 times of dust particles more than traditional air cleaner.

Traditional air cleaner may rated can removal dust particles size down to 0.3 microns, "innoclean" has been tested can remove dust particles size of 0.3 microns with over 99.97% (Filter) and over 95% (machine one pass efficiency)..

### What is machine one pass efficiency?

Most of the air cleaner manufacture rated that their machine can remove 99.97% of 0.3 microns dust particles, the reason is they have installed a HEPA inside the cleaner. Then, we should ask what's the grade of the HEPA? Is that the HEPA fit to Be install inside the machine? Any possibility of Air leakage?

The fact is that most of the air cleaner's HEPA installation on market is not really fit to the cleaner, the result is decrease the machine one pass efficiency of dust particles finally, although a very little air leakage, most of the dust particles will direct pass though the machine from the air leakage. It means that bacteria and virus will also direct pass though the machine from the air leakage. The truth is most of the air cleaner's one pass efficiency on market may just have 10% or 20%.

#### Air flow rate

400A Cleanroom	380 M3/Hr	
300A / 300B Cleanroom	290 M3/Hr	
Service Area (ft.2)	Up to 800 (400A) / 700 (300A/B)	
	<u>400A Cleanroom</u>	<u>300A / B Cleanroom</u>
Service Area @ 800 ft.2	< 60 min.	< 70 min
Service Area @ 600 ft.2	< 45 min.	< 50 min
Service Area @ 400 ft.2	< 30 min.	< 35 min
Service Area @ 200 ft.2	< 15 min.	< 17 min

#### Pollutant removal capability

Microorganism removal	99.5%
VOC removal	96.2%
Formaldehyde removal	95.5%
Benzene removal	85%
0.3 micro-meter Dust removal	99.97%
0.1 micro-meter Dust removal	90.0%
General Odor removal	80%

#### Main Filtration Parts

Electrostatic Pre-filter	YES
Antimicrobial Pre-filter	YES
True HEPA Filter	40 mm
Photo catalyst Chamber	2 PCO Filters
MnO2 Catalytic Carbon Filter	YES
253.7 nm UVC Sterilizing Lamp	2 UV Lamps
Anion Generator	YES
Colour	
400A	(Pearl White)
300A	(Blue White)
300B	(Silver White)

## 8 Different Models / 8 款不同型號

### ChemPro HEPA

With "IC Pro Chemical Filter" and "H13 Grade 20mm TRUE HEPA Filter" could effective to remove different kind of harmful chemical substance and 99.97% of 0.3 micro-meter (1/300 of human hair) fine particles. Especially for chemical which most commonly be found in indoor air e.g. VOC, Formaldehyde and Benzene etc.... Totally improve the indoor air quality inside your environment.

#### Other Function:

Removes airborne pollutants, including fine dust particles pollen, unpleasant smells, toxic gas, chemical e.g. most common VOC, formaldehyde, Radon and Benzene, mold spore, fungi and also Bacteria & Virus.

#### Suitable area:

Laboratory, Factory and where after new decoration works etc...

配備"IC Pro Chemical Filter"及"H13 Grade TRUE HEPA Filter", 能有效去除空氣中之多種有害物質(如常見之有機揮發物 VOC, 甲醛 HCHO 及苯)及微粒(少於 0.3 微米 - 1/300 一般人頭之頭髮); 有效改善空氣質素及防止交叉感染, 並保障你及每位在場人仕。

其它功能: 減少空氣中之污染物如: 塵埃, 異味, 有害物質如: 有機揮發物, 鉀醛及砒等, 更能去除霉菌孢子, 細菌, 真菌及病毒等

#### 適用地方:

實驗室, 工廠及任何剛進行裝修工程後之地方等...



### **IC Pro Chemical Filter and IC Pro MnO2 Catalytic Carbon Filter**

Efficiency to remove chemical substance and odor in air. Eliminate the following: Acetic acid, Acetone, Acrolein, Acrylonitrile, 1.3 Butadiene, Butyric acid, Carbon disulfide, Chlorine dioxide, Cresol, Cyclohexanone, Diethylamine, Dimethylamine, Ethanol, Ethyl acetate, Ethyl acrylate, Ethylamine, Formic acid, Hydrogen chloride, Isoprene, Isopropanol, Methanol, Methyl acrylate, Methyl disulfide, Methyl ethyl ketone, Methyl mercaptan, Methyl sulfid, Methyl vinyl ketone, Methylamine, Nitroglycerine, Ozone, Phenol, Skatole, Styrene, Sulfur trioxide, Trichloroethylene, Tri hylamine, Trimethylamine, Vinyl chloride

專利的 IC ChemPro 催化過濾網的功能是分解各種化學物, 包括乙酸、丙酮、丙烯醛、丙烯腈、1.3 丁二烯、丁酸、二硫化碳、二氧化氮、甲酚、環己酮、二乙基氨基乙基、二甲胺、乙醇、乙酸乙酯、普通酒精、乙胺、蟻酸、氰化物橡膠基質、異丙醇、甲醇、乙酸甲酯等。

#### 常見環境中之化學物及異味如:

膠水, 天拿水, 油漆, 漂染材料, 印刷油墨, 消焊, 化工物料, 廁所, 垃圾, 腐蝕性物料及腐肉等所產生的有害物質及異味等

IC Pro Chemical Filter 之主要原理為分解及吸收, 故此其比一般市面上之活性碳(Carbon)單靠吸收之 filter 效能更高(一般為 4-5 倍), 且使用時間更長(一般為 3-4 倍).

<u>Air flow rate</u>	
400A ChemPro HEPA	380 M3/Hr
300A / 300B ChemPro HEPA	280 M3/Hr
Service Area (ft.2)	Up to 800 (400A) / 700 (300A/B)
	<u>400A CP HEPA</u> <u>300A / B CP HEPA</u>
Service Area @ 800 ft.2	< 60 min.                      < 70 min
Service Area @ 600 ft.2	< 45 min.                      < 50 min
Service Area @ 400 ft.2	< 30 min.                      < 35 min
Service Area @ 200 ft.2	< 15 min.                      < 17 min
<u>Pollutant removal capability</u>	
Microorganism removal	99.5%
VOC removal	99.2%
Formaldehyde removal	99.5%
Benzene removal	95%
0.3 micro-meter Dust removal	97.20%
0.1 micro-meter Dust removal	65.9%
General Odor removal	80%
Cigarette Smoke removal	72%
<u>Main Filtration Parts</u>	
Electrostatic Pre-filter	YES
Antimicrobial Pre-filter	YES
True HEPA Filter	YES
Photo catalyst Chamber	2 PCO Filters
IC Pro Chemical Filter	YES
MnO2 Catalytic Carbon Filter	YES
253.7 nm UVC Sterilizing Lamp	2 UV Lamps
Anion Generator	YES
Colour	
400A	(Pearl White)
300A	(Blue White)
300B	(Silver White)

## 8 Different Models / 8 款不同型號

### ChemPro EP

With "IC Pro Chemical Filter" and "Electrostatic Precipitator" could effective to remove different kind of harmful chemical substance and 99.5% of 0.01 micro-meter (1/10,000 of human hair) extreme fine particles and also cigarette / cigar smoke. Especially for chemical which most commonly be found in indoor air e.g. VOC, Formaldehyde and Benzene etc.... and also different kind of harmful chemical in smoke. Totally improve the indoor air quality inside your environment.

#### Other Function:

Removes airborne pollutants included fine dust particles pollen, unpleasant smells, toxic gas, smoke, chemical e.g. most common VOC, Radon. formaldehyde and Benzene, mold spore, fungi, Bacteria & Virus.

#### Suitable area:

Laboratory, Factory etc...

配備"IC Pro Chemical Filter"及"靜電除塵組件",能有效去除空氣中之多種有害物質(如常見之有機揮發物 VOC, 甲醛 HCHO 及苯)及微粒(少於 0.01 微米 – 1/10,000 一般人之頭髮);如二手煙所產生之微粒 有效改善空氣質素及防止交叉感染,並保障你及每位在場人仕。

其它功能: 減少空氣中之污染物如: 塵埃, 異味, 有害物質如: 有機揮發物, 氫氣, 鉀醛及砒等, 更能去除霉菌孢子, 細菌, 真菌及病毒等

適用地方:  
實驗室, 工廠等...



### IC Pro Chemical Filter and IC Pro MnO2 Catalytic Carbon Filter

Efficiency to remove chemical substance and odor in air. Eliminate the following: Acetic acid, Acetone, Acrolein, Acrylonitrile, 1.3 Butadiene, Butyric acid, Carbon disulfide, Chlorine dioxide, Cresol, Cyclohexanone, Diethylamine, Dimethylamine, Ethanol, Ethyl acetate, Ethyl acrylate, Ethylamine, Formic acid, Hydrogen chloride, Isoprene, Isopropanol, Methanol, Methyl acrylate, Methyl disulfide, Methyl ethyl ketone, Methyl mercaptan, Methyl sulfid, Methyl vinyl ketone, Methylamine, Nitroglycerine, Ozone, Phenol, Skatole, Styrene, Sulfur trioxide, Trichloroethylene, Tri hylamine, Trimethylamine, Vinyl chloride

專利的 IC ChemPro 催化過濾網的功能是分解各種化學物, 包括乙酸、丙酮、丙烯醛、丙烯腈、1.3 丁二烯、丁酸、二硫化碳、二氧化氮、甲酚、環己酮、二乙基氨基乙基、二甲胺、乙醇、乙酸乙酯、普通酒精、乙胺、蟻酸、氰化物橡膠基質、異丙醇、甲醇、乙酸甲酯等。

#### 常見環境中之化學物及異味如:

膠水, 天拿水, 油漆, 漂染材料, 印刷油墨, 消焊, 化工物料, 廁所, 垃圾, 腐蝕性物料及腐肉等所產生的有害物質及異味等

IC Pro Chemical Filter 之主要原理為分解及吸收, 故此其比一般市面上之活性碳(Carbon)單靠吸收之 filter 效能更高(一般為 4 – 5 倍), 且使用時間更長(一般為 3 – 4 倍)。

#### 靜電除塵組件

為一金屬制之過濾組件, 由金屬線及金屬片組成. 使用產生高電壓之過程, 使空氣中的塵埃能以正負電磁相給之原現下使其被緊緊地吸到金屬片上, 連少於 0.01 微米之塵埃 (如二手煙之微粒)也被有效地吸收。

Air flow rate	
400A ChemPro HEPA	380 M3/Hr
300A / 300B ChemPro EP	280 M3/Hr
Service Area (ft.2)	Up to 800 (400A) / 700 (300A/B)
	<u>400A CP EP</u> <u>300A / B CP EP</u>
Service Area @ 800 ft.2	< 60 min.                      < 70 min
Service Area @ 600 ft.2	< 45 min.                      < 50 min
Service Area @ 400 ft.2	< 30 min.                      < 35 min
Service Area @ 200 ft.2	< 15 min.                      < 17 min
Pollutant removal capability	
Microorganism removal	99.5%
VOC removal	99.2%
Formaldehyde removal	99.5%
Benzene removal	95%
0.3 micro-meter Dust removal	97.20%
0.1 micro-meter Dust removal	99.5%
General Odor removal	80%
Cigarette Smoke removal	72%
Main Filtration Parts	
Electrostatic Pre-filter	YES
Antimicrobial Pre-filter	YES
Electrostatic Precipitator	YES
Photo catalyst Chamber	2 PCO Filters
IC Pro Chemical Filter	YES
MnO2 Catalytic Carbon Filter	YES
253.7 nm UVC Sterilizing Lamp	2 UV Lamps
Anion Generator	YES
Colour	
400A	(Pearl White)
300A	(Blue White)
300B	(Silver White)

## 8 Different Models / 8 款不同型號

### OdorVOC HEPA

With “iAiR MnO<sub>2</sub> Catalytic filter” and “H13 Grade 20mm TRUE HEPA Filter” could effective to remove different kind of Odor and 99.97% of 0.3 micro-meter (1/300 of human hair) fine particles. Especially for odor which are commonly be found from refuse collection plant, toilet, kitchen, market and water treatment plant etc.... Totally improve the indoor air quality inside your environment.

#### Other Function:

Removes airborne pollutants, including fine dust particles pollen, unpleasant smells, toxic gas, chemical e.g. most common VOC, formaldehyde, Radon and Benzene, mold spore, fungi and also Bacteria & Virus.

#### Suitable area:

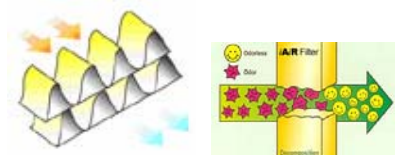
Office, canteen, shop, toilet and where odor is come out etc...

配備“iAiR MnO<sub>2</sub> Catalytic filter”及“H13 Grade TRUE HEPA Filter”，能有效去除空氣中之多種異味及微粒(少於 0.3 微米 – 1/300 一般人之頭髮)；如垃圾房，廁所，廚房，街市及污水處理廠等產生之異味，有效改善空氣質素及防止交叉感染，並保障你及每位在場人仕。

其它功能：減少空氣中之污染物如：塵埃，異味，有害物質如：有機揮發物，鉀醛及砒等，更能去除霉孢子，細菌，真菌及病毒等

適用地方：

寫字樓，飯堂，店舖，廁所及任何存在異味問題等地方...



### IAiR MnO<sub>2</sub> Catalytic Filter

The iAiR catalyst is made in form of honeycomb shape, which is finished with a high active Manganese Dioxide (MnO<sub>2</sub>). This feature provides low-pressure drop and excellent contact efficiency of our systems. As a result, the high deodorizing efficiency and low operating cost can be achieved. Catalytic odor and chemical gas removal uses a mechanism of oxidizing the unpleasant odor substance, and so decomposing it. This gives a higher performance and longer service life than other deodorizing methods.

#### Filter Media of iAiR

The filter is made of ceramic materials and formed in honeycomb shape with high cells density (350 cells/in<sup>2</sup>). The catalyst materials can be richly impregnated into the carrier by using the advanced Nano-technology. IAiR filter decomposes the odor and chemical gas through catalyst oxidation.

#### Odor and Chemical Substance Reduction Efficiency

An Odor Assessment Test of the iAiR Odor Control System was performed by Odor Research Laboratory of the “Hong Kong Polytechnic University”. The Odor reduction efficiency of treating synthetic odorous gas originated from biodegradable waste is more than 82.99%. And VOC removal tested by “Hong Kong Standards and Testing Centre” is more than 96.9%

IAiR MnO<sub>2</sub> Catalytic Filter 之主要原理為分解，故此其比一般市面上之活性炭(Carbon)單靠吸收之 filter 效能更高(一般為 4 – 5 倍)，且使用時間更長(一般為 10 – 15 倍)。一般使用情況下可長達 3 至 4 年或以上



The Hong Kong Polytechnic University

<u>Air flow rate</u>	
400A OdorVOC HEPA	380 M3/Hr
300A / 300B OdorVOC HEPA	280 M3/Hr
Service Area (ft.2)	Up to 1,000 (400A) / 800 (300A/B)
	<u>400A OVOC HEPA</u> <u>300A / B OVOC HEPA</u>
Service Area @ 1,000 ft.2	< 60 min.                      < 70 min
Service Area @ 600 ft.2	< 35 min.                      < 50 min
Service Area @ 400 ft.2	< 25 min.                      < 30 min
Service Area @ 200 ft.2	< 12 min.                      < 15 min
<u>Pollutant removal capability</u>	
Microorganism removal	99.5%
VOC removal	96.9%
Formaldehyde removal	99.5%
Benzene removal	95%
0.3 micro-meter Dust removal	97.20%
0.1 micro-meter Dust removal	65.9%
General Odor removal	82.9%
Cigarette Smoke removal	65%
<u>Main Filtration Parts</u>	
Electrostatic Pre-filter	YES
Antimicrobial Pre-filter	YES
True HEPA Filter	YES
Photo catalyst Chamber	2 PCO Filters
IAiR MnO <sub>2</sub> Catalytic Filter	YES
MnO <sub>2</sub> Catalytic Carbon Filter	YES
253.7 nm UVC Sterilizing Lamp	2 UV Lamps
Anion Generator	YES
Colour	
400A	(Pearl White)
300A	(Blue White)
300B	(Silver White)

## 8 Different Models / 8 款不同型號

### **+** OdorVOC EP

With “iAiR MnO<sub>2</sub> Catalytic filter” and “Electrostatic Precipitator” could effective to remove different kind of Odor and 99.5% of 0.01 micro-meter (1/10,000 of human hair) extreme fine particles and also cigarette / cigar smoke. Especially for odor which are commonly be found from refuse collection plant, toilet, kitchen, market and water treatment plant etc.... Totally improve the indoor air quality inside your environment.

#### Other Function:

Removes airborne pollutants, including fine dust particles pollen, unpleasant smells, toxic gas, chemical e.g. VOC, formaldehyde, Radon and Benzene, mold spore, fungi and also Bacteria & Virus.

#### Suitable area:

Office, canteen, shop, toilet and where odor is come out etc...

配備“iAiR MnO<sub>2</sub> Catalytic filter”及“靜電除塵組件”，能有效去除空氣中之多種異味及微粒(少於 0.01 微米 – 1/10,000 一般人之頭髮); 如二手煙所產生之微粒; 如垃圾房, 廁所, 廚房, 街市及污水處理廠等產生之異味, 有效改善空氣質素及防止交叉感染, 並保障你及每位在場人仕。

其它功能: 減少空氣中之污染物如: 塵埃, 異味, 有害物質如: 有機揮發物, 鉀醛及砒等, 更能去除霉孢子, 細菌, 真菌及病毒等

#### 適用地方:

寫字樓, 飯堂, 店舖, 廁所及任何存在異味問題等地方...



### **IAiR MnO<sub>2</sub> Catalytic Filter**

The iAiR catalyst is made in form of honeycomb shape, which is finished with a high active Manganese Dioxide (MnO<sub>2</sub>). This feature provides low-pressure drop and excellent contact efficiency of our systems. As a result, the high deodorizing efficiency and low operating cost can be achieved. Catalytic odor and chemical gas removal uses a mechanism of oxidizing the unpleasant odor substance, and so decomposing it. This gives a higher performance and longer service life than other deodorizing methods.

#### Filter Media of iAiR

The filter is made of ceramic materials and formed in honeycomb shape with high cells density (350 cells/in<sup>2</sup>). The catalyst materials can be richly impregnated into the carrier by using the advanced Nano-technology. IAiR filter decomposes the odor and chemical gas through catalyst oxidation.

#### Odor and Chemical Substance Reduction Efficiency

An Odor Assessment Test of the iAiR Odor Control System was performed by Odor Research Laboratory of the “Hong Kong Polytechnic University”.

The Odor reduction efficiency of treating synthetic odorous gas originated from biodegradable waste is more than 82.99%. And VOC removal tested by “Hong Kong Standards and Testing Centre” is more than 96.9%

IAiR MnO<sub>2</sub> Catalytic Filter 之主要原理為分解, 故此其比一般市面上之活性碳(Carbon)單靠吸收之 filter 效能更高(一般為 4 – 5 倍), 且使用時間更長(一般為 10 – 15 倍). 一般使用情況下可長達 3 至 4 年或以上



The Hong Kong  
Polytechnic University

<u>Air flow rate</u>	
400A OdorVOC EP	380 M3/Hr
300A / 300B OdorVOC EP	280 M3/Hr
Service Area (ft.2)	Up to 1,000 (400A) / 800 (300A/B)
	<u>400A Odor VOC EP</u> <u>300A / B OdorVOC EP</u>
Service Area @ 1,000 ft.2	< 60 min.                      < 70 min
Service Area @ 600 ft.2	< 35 min.                      < 50 min
Service Area @ 400 ft.2	< 25 min.                      < 30 min
Service Area @ 200 ft.2	< 12 min.                      < 15 min
<u>Pollutant removal capability</u>	
Microorganism removal	99.5%
VOC removal	96.9%
Formaldehyde removal	99.5%
Benzene removal	95%
0.3 micro-meter Dust removal	97.20%
0.1 micro-meter Dust removal	99.5%
General Odor removal	82.9%
Cigarette Smoke removal	72%
<u>Main Filtration Parts</u>	
Electrostatic Pre-filter	YES
Antimicrobial Pre-filter	YES
Electrostatic Precipitator	YES
Photo catalyst Chamber	2 PCO Filters
IAiR MnO <sub>2</sub> Catalytic Filter	YES
MnO <sub>2</sub> Catalytic Carbon Filter	YES
253.7 nm UVC Sterilizing Lamp	2 UV Lamps
Anion Generator	YES
Colour	
400A	(Pearl White)
300A	(Blue White)
300B	(Silver White)

## Filtration Summary Table – 8 models / 過濾組件表 - 8 款型號

### Filtration Parts combination of "innoclean" 300 & 400 Series

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
HealthPro			1		1	1			2	2		1	1	1
MultiTrap			1		1	1	1		2	2		1		1
SmokeTrap					1	1		1	2	2	1	1		1
OdorVOC EP	1				1	1		1	2	2		1		1
OdorVOC HEPA	1		1		1	1			2	2		1		1
ChemPro EP		1			1	1		1	2	2		1		1
ChemPro HEPA		1	1		1	1			2	2		1		1
Cleanroom				1	1	1			2	2		1		1

- A "iAiR" MnO<sub>2</sub> Filter
- B "IC Pro" ChemPro Filter
- C "IC Pro" 20 mm H13 EN1822 HEPA Filter
- D "IC Pro" 40 mm H13 EN1822 HEPA Filter
- E "GS" Antimicrobial Pre-Filter
- F Electrostatic Pre-Filter
- G "IC Pro" Nano-Silver Antimicrobial Filter
- H Electrostatic Precipitator
- I "IC Pro" 253.7nm UV Lamp
- J "IC Pro" TiO<sub>2</sub> Nano Photo-catalytic Filter
- K "IC Pro" MnO<sub>2</sub> Catalytic Carbon Filter Large
- L "IC Pro" MnO<sub>2</sub> Catalytic Carbon Filter Small
- M "IC Pro" Dustmate Filter
- N Ionizer

#### "獨立"式設計過濾網之好處:

"獨立"式設計, 對不同污染物能更針對性及更有效進行過濾

\* 過濾物料可相應增加, 從而增加整體過濾效能

\* 過濾網可獨立更換, 不會造成浪費, 更環保

\* 按不同過濾網本身的可使用時間, 可獨立更換濾網, 可使淨化器時刻保持良好過濾效能



## Performance Comparison Table / 效能比較表

Refer to the following table, we can more easy to understand the feature of the 8 different models, and more convenience to select the exactly model which we should use.

This comparison table is base on "innoclean" 8 different models only. "innoclean" understand the truth and must tell us that different design, filtering parts and theory would get different performance, we can never get a machine design with 100% or say "Perfect". So "innoclean" would tell you the performance difference between her model.

按以下比較表, 我們可更容易理解 8 個不同型號之特性, 且更方便我們選擇最適合自己使之型號.

以下比較表是只按"innoclean" 8 個不同型號作出自我比較. "innoclean" 深明一個道理及現實, 不同的設計, 過濾組件的配合及針對之原理, 該有着效能上的差異, 我們是永遠也沒有可能找到 100 分或稱為"完美"的機種的. 故止"innoclean"將在此告知我們其不同型號在效能上之不同.

**8 models get 8 different feature and performance**

**8 個型號有着 8 種不同特性及效能**

**"innoclean"  
Hospital Grde  
Air Purifier**

	Dust Particles and Smoke 微塵及煙塵	Allergy / Mold Spore and Dustmate 過敏原 / 霉菌孢子及塵蟎	Unpleasant Odor 異味	Chemical Gas and Harmful Substance 化學氣體及有害物質	Fungi, Bacteria & Virus 真菌, 細菌及病毒
HealthPro	*****	*****	*****	*****	*****
MultiTrap	*****	*****	*****	*****	*****
SmokeTrap	*****	*****	*****	*****	*****
Cleanroom	*****	*****	*****	*****	*****
ChemPro HEPA	*****	*****	*****	*****	*****
ChemPro EP	*****	*****	*****	*****	*****
OdorVOC HEPA	*****	*****	*****	*****	*****
OdorVOC EP	*****	*****	*****	*****	*****

