## **※YORK** 約克

# YORK Duct Type TiO2 Healthy Air Sterilizer 風管型TiO2健康空氣殺菌器



Offering the most comprehensive product range with latest technology in improving indoor air quality, YORK introduces Nano-TiO2 (Titanium dioxide) Indoor Disinfection Technology. Unique duct type TiO<sub>2</sub> Healthy Air Sterilizer fits all duct type airside equipment, including non-YORK products!

TiO<sub>2</sub> photocatalysts are both green and currently one of the most effective disinfection solutions available today. The advanced photocatalytic oxidation is also being used by Space Greenhouse technology and to fight against anthrax and bioterrism.

為改善室內空氣質素,約克推出納米級TiO2健康空氣殺菌技術,為客戶提供具備最先進技術的完整產品線。獨特的風管型TiO2健康空 氣殺菌器為可選配件,可安裝於約克及其他品牌的風管型空調設備,殺菌效果非常顯著。

先進的二氧化鈦(Titanium Dioxide)光催化氧化技術不但非常環保,更是目前最有效的空氣消毒技術之一。部份先進國家的航天溫室 正在使用這項技術,及作為反炭疽病及生物恐怖主義的殺菌設備。

- Unique technology pioneered by YORK 空調業界領先技術
- Small & Compact for trouble-free installation in new and existing installations 外型小巧 — 無論現存及新購置的空調系統,均可輕易安裝,並可提升舊有空調水平
- Effective killing all airborne bacteria, viruses, etc 超強殺菌力一空氣中傳播的細菌、病菌、等等

	HEPA Filter HEPA過濾器	Electrostatic 靜電	Ozone 臭氧		lonizer 離子發生器	Piño2	
Mold	Poor	Good	Good	Good	Poor	Excellent	
霉菌	差	好	好	好	差	極好	
Bacteria	Poor	Good	Good	Good	Poor	Excellent	
細菌	差	好	好	好	差	極好	
Dust Mites	Poor	Poor	Poor	Good	Poor	Excellent	
灰塵微粒	差	差	差	好	差	極好	
Gases	Poor	Poor	Good	Good	Poor	Excellent	
氣體	差	差	好	好	差	極好	
Odors	Poor	Good	Good	Poor	Good	Excellent	
氣味	差	好	好	差	好	極好	
Smoke	Good	Good	Good	Poor	Excellent		
煙霧	好	好	好	差	極好		
VOCs	Poor	Poor	Good	Good	Poor	Excellent	
易揮發的有機混合物	差	差	好	好	差	極好	
Pets Dander	Good	Good	Good	Good	Good	Excellent	
寵物毛屑	好	好	好	好	好	極好	



Special thanks to the following customers for choosing YORK Duct Type TiO2 Healthy Sterilizer

Hong Kong: Worldwide Centre; Pacific Place II; K K Leung Building, HK University; Albany Building; Kwai Chung Plaza Workshop; Po Shek Wu Road Office, East Rail; Regal Hotel, Tsimshatsui

Casa Real Casino, Fortuna Casino, Landmark Casino, BMW Service Centre, Centro De Recursos Educativos

特別鳴謝以下客戶選用約克風管型TiO2健康空氣殺菌器:

香港:環球大廈、太古馬沙山海雪主10位除主水及田 香港:環球大廈、太古馬場二期、香港大學梁錄球樓、雅賓利大廈、葵涌廣場、東鐵寶石湖站、富豪九龍酒店 澳門:皇家金堡酒店(娛樂場)、財神酒店(娛樂場)、置地酒店(娛樂場)、寶馬汽車維修中心、教育資源中心

- \* This system was tested by the following reputable institutes and organizations:
  - The Hong Kong Polytechnic University, Report No. P04-0521
- The Productivity Council of Hong Kong, Report No. 4101-40014285
- Detection Centre of Microbiology, Guangzhou, PRC, Report No. FM0644

#### 本系統經由以下著名學府及機構測試及驗證:

- 香港理工大學,報告編號P04-0521
  香港生產力促進局,報告編號4101-40014285
- 中國廣州微生物研究中心,報告編號FM0644





## Nano-TiO2 Indoor Disinfection Technology 納米級健康空氣殺菌技術

Mainly used for sterilization, Nano grade  $TiO_2$  (Titanium Dioxide) is divided into ANATASE and RUTILE. The former reacts with UVA light to produce photocatalytic reaction and the latter kills bacteria via direct contact.

For maximum effect, YORK combines both ANATASE and RUTILE grade TiO<sub>2</sub> into its nano-TiO<sub>2</sub> disinfection technology formulation. When YORK nano-TiO<sub>2</sub> photocatalyst absorbs YORK's Nano-light, it produces hydroxyl radicals (·OH) and superoxide ions (O<sub>2</sub>.-) who oxidize and disintegrate the following pathogens and pollutant particles into harmless carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O):

納米二氧化鈦分為ANATASE和RUTILE等級,且主要用於殺菌。 ANATASE納米TiO2與UVA結合時產生的光催化反應會將細菌殺滅,而RUTILE納米TiO2則通過直接接觸把細菌消滅。

為了達到最高效率,約克把ANATASE和RUTILE TiO2同時結合在其公式中。當二氧化鈦(TiO2)塗層受到高能約克納米光(Nanolight)照射後,便會產生氫氧基(·OH)和超級氧化離子(O2.-),當空氣流經時,有害物質粒子會與這些氧化力極強的氫氧基(·OH)和超級氧化離子(O2.-)接觸,下列有害物質便會迅速被氧化和分解,變成無害的二氧化碳(CO2)和水汽(H2O):

Note: Nano-light utilizes UVA band wave for optimal germ-killing efficiency.

注: 納米光為能提供最佳消毒效果的UVA紫外線



- Biological pathogens bacteria, viruses, etc 生物污染 – 細菌、病菌...
- Organic contaminants volatile organic compounds (VOCs) such as formaldehyde, benzene, etc 有機污染物 – 易揮發的有機混合物(VOCs),如甲醛、苯等...
- Molds, Fungi, etc 霉菌、真菌,等等...
- Inorganic gaseous pollutants NOx, SOx, etc 無機的氣態污染物 - NOx, SOx...
- Smoke and offensive odors 煙味和令人不舒服的氣味

## YORK Nano-TiO<sub>2</sub> Indoor Disinfection Technology incorporates the following advantages: 納米級TiO<sub>2</sub>健康空氣殺菌技術獨具的特點包括:

- YORK is both a pioneer and industry leader in the use of nano-grade TiO<sub>2</sub> in airside systems for air conditioning, domestic or industrial centralized air-conditioning systems, and domestic split air-conditioners; 約克是業內將納米TiO<sub>2</sub>應用於機盤管、家用及商用中央空調、掛牆式分體空調機的先驅;
- A patent pending on the application covering 125 countries across the globe; 在全球125個國家均獲認可的納米級TiO₂技術,專利申請中;
- The photocatalytic reaction is environmentally friendly; Harmless CO<sub>2</sub> and H<sub>2</sub>O are the only by-products of photocatalytic oxidation. In addition, there is no consumption of the nano-grade TiO<sub>2</sub> substrate at all, since it only acts as catalyst;

光催化氧化有利於環保,無害的 $CO_2$ 和 $H_2O$ 是過程的唯一副產品,此外,過程中完全沒有消耗納米級的 $TiO_2$ 基底,因為它僅僅充當催化劑,不消耗任何二氧化鈦,可以循環使用:

 Its long-life Nano-Light lasts 8,000 hours under normal conditions 納米TiO₂殺菌器的納米光作用持久,在理想狀態下可使用長達8,000小時。





#### Specifications 產品規格

Item / 型號	Power Supply / 電源	Light Power(W) / 功率	No. of Light Tube / 光管數量	Weight (kg) / 重量	Size(mm) / 尺寸
384-48000-000 Duct Type風管型	AC 110V / 220V	9W	2	2.9	430(L)x100(W)x150(H)

### YORK is your choice

Founded in 1874, YORK is the world's largest independent supplier of heating, ventilating, air conditioning and refrigeration equipment. Headquartered in Hong Kong, YORK Asia Pacific offices are located in Australia, India, Indonesia, Korea, Malaysia, New Zealand, Philippines, PRC, Singapore, Taiwan, Thailand and Vietnam.

YORK has been chosen by world-renowned organizations including the National Theatre of China, the US Capitol, the Kremlin, the Sydney Opera House, the Trans-Channel Eurotunnel, the Hong Kong Convention & Exhibition Centre, the Kuala Lumpur City Centre and Taipei 101, the world's tallest building.

**YORK's Commitment** - Superior Quality • Excellent Service • Distinctive Technology **約克的承諾** - 上乘的質量 • 卓越的服務 • 獨特的技術

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