

# PURIUM www.purium.kr

Head office 15074 Building 106, KPU-DS Venture Town, 41 Manhae-ro, Siheung-si, Gyeonggi-do Show room 05854 Songpa Terra Tower 2 A 1609~1911, 1921, 201 Songpa-daero, Songpa-gu, Seoul



Cyclone Turbo Airshot Eco-friendly sterilization · Antibacterial air curtain Sanitizes the indoor space by blocking 12 patented wind discharging devices create the inflow of ultra- fine dust, bacteria and harmful substances at the source.

quiet and powerful wind, effectively removing fine dust, harmful substances and bacteria.



CE C CSR CE Certified KC Certified



#### Carbon Nanotube / H13 Hepa filter

Strong LED antibacterial and disinfection

Total of 8 H13 grade HEPA filters installed 4 on each left and right, removing 99.9% of ultra-fine dust. The HEPA filter and UV-A,C LED mounted on the discharge port effectively sterilizes destroying the tissues of bacteria & viruses.





ISO 9001:2015 ICT Convergence Quality Certified Certification of Industrial Convergence Item



Tomorrow





#### Cyclone Turbo Airshot

Utilized aerospace engineering gas dynamics "Bernoulli's Principle" to create 12 patent recognized air discharge machines located upper, left and right sides. It is used to create quiet and strong wind to remove ultra-fine dust, harmful substances & bacteria attached to people and items.



## Air Curtain

Air curtain made from cyclone turbo airshot blocks ultrafine dust, bacteria and other harmful substances from entering indoor space to purify.



# High Functioning Air Purifying Filter

Four 200mm diameter large dust collection fans installed with 13-15 grade HEPA+ Carbon nanotube filter to selectively remove ultrafine dust, odour, ammonia, acetaldehyde, formaldehyde, herbic acid, Toluene, enbutane, ethylene, hydrogen sulfide, cigarette smoke, all kinds of VOC and other harmful substances.



### Large dust collection fan

Four 200mm diameter large dust collection fans are located on both sides, 2 each on the left and right sides. This effectively collects harmful substances that are separated from cyclone turbo airshot to be and prevent it from getting away to outside space

High efficiency with low power design

Automotive electronics technology used to develop

low power design allowing the use of regular 220V

and cost of electronic use for a month remains

# Low Noise

Motor wheels developed with advanced technology makes high wind volume with low wind sources making a low sound like refrigerator level. 3 level of artificial intelligence mode and low noise mode provided.

#### Carbon Nanotube

High surface area and nano-sized pores are well-developed with activated carbon in each tube. effectively removing various organic compounds & odor.



#### H13-15 Level HEPA Filter

260mm X 230mm sized filter located on each side (2 on the right side and 2 on the left side) removing ultrafine dust (P.M 2.5, 0.3um) with 99.9% removal.



#### (((•))) Artificial intelligence IoT sensing

24 hrs monitor and trend analysis of 5 types of indoor air quality (temperature,humidity,Carbon dioxide,VOC,PM1.0) and provides solutions. Air report provided to monitor the daily/weekly/monthly air quality change



### Signage

43-inch Signage installed outside to show various contents and through PURIUM's expansion allowed it to be used for various conditions.



0000 UV-A

#### Tread plate sterilizer (coil pad)

It effectively removes dust and germs from your shoes with a coil pad and a disinfectant solution for the tread plate sterilizer



#### UV-A Ultraviolet rays (Violet blue)

Each of the 16 cross fan has installed UV-A LED ravs (Violet blue) sanitizer which removes 99.9% bacteria in air that passess through to remove odour, mold and fruit flies. (Removal of E.coli, salmonella, glaucoma, yellow staphylococcus)



#### Smart IoT Cloud

Open API- It can be linked to various daily appliances, air-conditioning facilities and can be remotely controlled and monitored by smartphone

# -<u>@</u>-

#### Convergence of new IT technologies

People counting, thermal imaging cameras, CCTV and QR code recognition are already implemented, and we will continue to add various technologies



Unlike regular deodorization, which covers and hides odors, it breaks down the molecular bonds of odors to make a pleasant environment.



#### Harmless natural anti-bacterialization

It suppresses molds and antibacteriales 99.9% of pathogens such as E. coli, staphylococcus, and other bacteria.

<u>a</u>ſ Removal of odor





Sanitize, sterilize and purify approximately 1000pyeong (approx. 3305 m2) space.

# Air flow

below \$20 (Korean standard).









## UV-C Ultraviolet rays (Violet blue)

The UV-C eco-friendly LED ultraviolet sanitizer (Violet Blue) with 275nm wavelengths has a sterilizing function that is powerful enough to destroy influenza/corona-based viruses and cleans the air drawn through the collection fan.







#### Strong antimicrobial & antibacterial

Antibacterial Experiment: Disposal of the drug and cypress oil respectively on a culture germ medium, and compare the size of the circular ring indicating the extent of sterilization.





## AA Medical Purpose, Natural Phytoncide

Natural phytoncide collected from Jeonnam Jangseong cypress tree to purify indoor air. Feel the natural forest bathing effect indoors by naturally whistling phytoncide. Natural phytoncide makes the indoor air clean and refreshing with its deodorization and antibacterial functions

# Public - Corporate - Affiliated Institutions

Installation Status:
 Korea Land and Housing Corporation/ National Tax Service/ Small and Medium Venture Business Corporation/ Korea Senior Citizens Development Institute/Broadcasting
 and Communication Promotion Agency/ Business Technology Evaluation Office/ Trade Investment Promotion Corporation/ Korea Gas Corporation/ Korea National Territory
 Information Corporation/ Korea Southeast Power/Korea East-West Power/Hydro & Nuclear Power/ Police Mutual Aid Association/Government Sejong Convention Center, etc.

- Korea Land and Housing Corporation











Daejeon National Science Museum

Science and Technology Museum/Natural History Hall/Dream Atti Experience Center



천연 피문치드 항균 바람 ㅎㅎㅎ

#### Medical Social Service - Religious Facilities

Installation Status:
 Red Cross Gimcheon Medical Center/Red Cross Pohang Medical Center/Red Cross Andong Medical Center/Red Cross Uljin-gun Medical Center/Red Cross Seongnam
 City Medical Center/National Chuncheon Hospital/National Rehabilitation Center/Jo-yeon Otorhinolaryngology/Yein Dermatology/Kang Kyung-min Orthopedic Surgery/
 Moknubang Surgeon/Bugok Hospital/Lohas Chamsang Nursing Hospital/Ilsan Cha Hospital/Uljin-gun General Welfare Center, etc.

#### - Daehan Redcross center



# Education Daycare Centers

Installation Status:
 Chung-Ang University/Korea University of Arts/Kyungwoon University/Ewha Girls' High School/Namsan Elementary School/Chungmu Elementary School/Deoksu
 Middle School/Hanyang Middle School/Mungrae Elementary School/Songwon Elementary School/Dongjak-gu Loa Kindergarten/Gwangju Ripple HABA Kindergarten/
 Childcare Comprehensive Support Center/Seoraful Nori School/Kori Nuclear Power Headquarters Daycare Center, etc.

#### Chung-Ang University



Seoul Munrae Elementary



#### **Other Facilities**

Installation Status: Kia Motor Show/Uljin Culture and Arts Center/Dream Park CC/EO Convex/Public Purchase Promotion Competition/Gangdong Art Center/
Lady's Classic Jeju Pinsk Golf Course/Korea Job World/Daejeon Hillstate/Yeongjongdo Blue Ocean/Baekseok-dong Model House/Mokdong DMC Starbiz Model House/
Gwangju Sangsang House Model House

#### Hotels

Silla Hotel/ The Born Hotel/ Seoul Walker Hill





#### Cinema

Yeongdeungpo CGV/ Songpa CGV/ Bucheon International Film Festival CGV/ Incheon CGV/Incheon training CGV/ Suwon CGV/Wangsimni CGV/Gwangju Terminal CGV/Ulsan Samsan CGV/



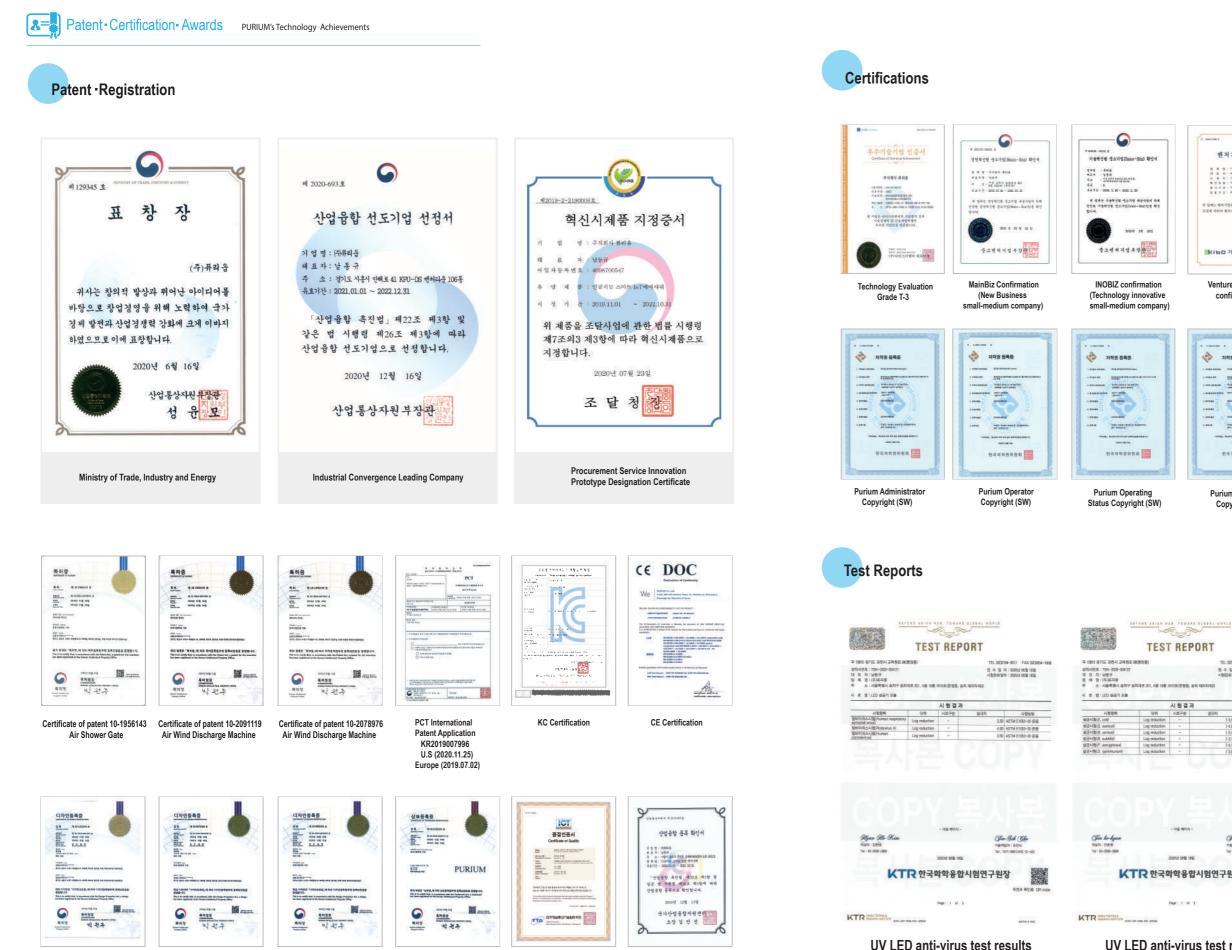












Certificate of Design Registration Certificate of Design Registration Certificate of Design Registration 30-0976486 Air Shower

PURIUM trademark certification 40-1521242

ICT convergence quality certification

Industrial convergent item certification

- Antivirus Test (Three-Tests) Human respiratory syncycial virus Flotavirus A Human coronavirus

B. subtilis

30-0982560 Air Shower

30-1025344 Air Shower

#### Smart IoT Airshowe



confirmation



Purium Media View Copyright (SW)



ISO 9001



. Research Facility

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Selected Excellence Design





UV LED anti-virus test results

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 Tel 49-30-614 1 744 541-30-620 1 www.klact.is.is 시험성적서 (Test Report) ( 상역시 원호 (2008/20042-01-01-00-00) 고 帝 帝 가 ( 주석호사 年2년 서울 종주우 동위대로 221, A동 18동 1810호 (문화동 등극적정각)(4) 사용 회사 전 10 (2010-04-16 - 2010-04-16 사 전 기 전 10 (2010-04-16 - 2010-04-16 오 전 1 (2010-04-16 - 2010-04-16 오 전 1 (2010-04-16 - 2010-04-16 오 전 1 (2010-04-16 - 2010-04-16) 오 전 1 (2010-04-16) 오 전 1 (2010-0 표. 이 월 월 소. 1 왕기도 한 나서 의해주 환기율보 143 한국생산기울인구용 한국(용 3종 **C** KITECH ------141 20204 041 221 한국생산기술연구원장 · 제시컵 시코 및 시코및으로 시험한 골유에 함하며, 전체 바울바 대한 응답을 보증 13 1 폰 성적사는 구매이 제시한 시로 될 시로말으로 시험한 철목에 참하며 전체 위불에 대한 품질을 시 지는 법입니다. 2. 해 주위사라 후보, 원신, 원고 및 소공용으로 시용할 수 많으며, 용도 아제의 시용을 급지합니다. 3. 폰 성적시적 친제 확인은 다리로도로 취입기능합니다. papil of E 4 101-17-0 協 CRITECHED

Hepa Filter (H13 Grade) Test results

Artificial Intelligence Smart IoT Airshower 6

#### Nara Market Public Procurement Service Innovative Product

#### Innovative product designation benefit (Demand institution)

Incorporation of government work evaluation	When purchasing products designated as innovative products, preference is given at 'Government Innovation Evaluation'
Active procurement administration exemption	Disciplinary exemption if there is no intention or major negligence at the time of procurement (Procurement Business Act amended) - Major negligence: Private interest/significant procedural defect
Priority purchase benefits for technology development products	Included in 14 types of technology development products for SMEs subject to priority purchase

% Innovative prototype contracts/Venture Nation product purchases / The manual for purchasing technology development products can be downloaded from our website. (http://purium.kr)

#### · Management guidelines for the trial purchase system of technology development products

Public model trial purchase	Purchasing agencies are based on the basis of contracts under Article 26 of the Enforcement Decree of the National Contract Act, Article 25 of the Enforcement Decree of the Local Contract Act, and Article 8 of the Sub-Government Agency Contract Secretariat for startup projects and pilot purchased products selected as general projects. Purchase contracts can be made accordingly.
Small trial purchase	Purchasing institutions can purchase trial products selected for small-income projects in accordance with Article 26 of the Enforcement Decree of the National Contract Act, Article 25 of the Enforcement Decree of the Local Contract Act, and Article 8 of the Regulations for Contract Administration for Public Enterprises and Sub-Government Organizations. Contracts can be made, and the purchase contract is deemed to have been made up to the estimated price of 50 million Koean Won per contract.

# Public Procurement Service Innovation Marketplace process

1 Enter sive Portal Innovation Market' (http://ppi.g2b.go.kr:8911/)

- O Log in using registered certification with Nara Market (When you use log in for the first time you will need to agree with terms and agreements)
- 3 Click Specific mall for Innovation products
- (4) Search 'Purium' in the innovation mall then search 'Smart IoT Air Shower

#### 5 Confirm product information and click 'Purchase'

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- Innovative Product Designation Benefits (Innovation Enterprises)

Request to conclude a contract with the Public Procurement Service (paragraph 4)

Subject to private contract National Contract Act Enforcement Decree Article 26, Section 1, Paragraph 5, 'Sa' Local Contract Act Enforcement Decree Article 25, Section 1 Paragraph 8 'Da' Enforcement Decree of the Procurement Business Act, Article 7-3

(trial purchase of prototypes)

disclosure of usage results (paragraph 5)

尚 Product information Artificial Intelligence Smart IoT Air Shower

# **Product Specifications**

Product Info	Installed as a gate type at the entrance to remove ultra fine dust, collect, air sanitize/deodorization and perform purification functions				
Company	Purium Co., Ltd.	Business License No.	usiness License No. 4098700547 Product No.		23700917
Venture Company	Y	Start-up Company	Y	Mid-term competitive product	Ν
Manufacturing/ Supply	Manufacturing	Unit	Large	Purchase requirement	Purchase Minimum is 1 Product
Size (mm)	W 1,940 X H 2,400	I 2,400 X D 885.93 X Inquire about non-standard sized products through company's main line (02-881-5543/4) Inquiry: Non-standard sized product production			
Purchase requirement	Minimum 1 order, order unit la	rge standard/ Minimum	standard/ Minimum delivery term is 14days from order inquiry/ Delivery *Installation fee (included)		

#### Product Model



PURIUM-10000-P



X Inquire about the product color through company's number (02-881-5544) : additional charges may occur when you request changes to color that is not a standard color 💥 Inquire about non-standard sized products through company's main line (02-881-5543/4) Inquiry: Non-standard sized product production





PURIUM-10000-B



# Regular product purchase cost

		(Unit: Won, VAT included)
Sortation	PURIUM-10000-P	PURIUM-10000-B
Product Cost	33,000,000	30,800,000
Delivery installation fee	1,320,000	1,320,000
Specifics	External Signage (O)	External Signage (X)

 $\ensuremath{\ll}$  Please inquire as Installation fee may vary depending on the location

# Joint product purchase cost

		(Unit: Won, VAT included)
Sortation	PURIUM-10000-P	PURIUM-10000-B
Product Cost	30,000,000	28,000,000
Delivery installation fee	0	0
Specifics	External Signage (O)	External Signage (X)

\* Please inquire as Installation fee may vary depending on the location

# Financial Lease Operational Lease (Rental)

		(Unit: Won, VAT included)
Sortation	PURIUM-10000-P	PURIUM-10000-B
Monthly Lease Cost (Won)	1,073,000	1,004,000
<ul> <li>Based on 36month maintenance criteria</li> <li>3 Years free maintenance guarantee (includes: A/S, Delivoruistaliation foi included)</li> </ul>	cleaning, phytoncide, consumable)	<ul> <li>Inquire: JChyunsystem/Lease business Team/ Jeong Jin Hwan director (010-8832-8210/jhjung@)ch.kr)</li> <li>* Lease/rental homepage: http://www.ucares.co.kr/Purium/default.aspx</li> </ul>

Delivery installation fee included
 Value added tax refundable

Short-Term Rental

		(Unit: Won, VAT included)
Sortation	Ren	ntal
Rental Period	Less than a month	2-6 months
Rental Fee	3,000,000 KRW/ month	2,000,000 KRW/ month
Consumables	Included	Separate inquiry
Installation/Removal Fee (Separate charges)	Area 1 (Seoul, Gyeonggi, Chungchung, Kangwon): 1,200,000 KF Area 2 (Jeolla, Gyeongsang ): 1,500,000 KRW Area 3 (Jeju and other cities): 1,800,000 KRW	RW

\* Rentals are only operated on a monthly basis. (Super short term base, 1-5days rental will be charged at the rate of one month)

# Consumables & additional products introduction and price

- Consumables (Filter and Phytoncide)

Product Name	H13 Hepa + Carbon nanotube collection filter	Free Filter	Phytoncide
Product Cost	100,000	30,000	50,000
Specifications	<ul> <li>Hepa 13 Grade filter with 3 level filter construction</li> <li>Selectively remove ultrafine dust, odour, ammonia, acetaldehyde, formaldehyde, herbic acid, toluene, enbutane, ethylene, hydrogen sulfide, cigarette smoke, all kinds of VOC &amp; other harmful substances.</li> <li>High efficiency gas removal</li> </ul>	<ul> <li>Made with mesh filter + corrugated filter</li> <li>Removes harmful gases &amp; deodorize</li> <li>Dust removal</li> </ul>	Natural Phytoncide collected from cypress trees in Jangseong, Jeonnam to provide Indoor air cleaning effect through indoor air purification
Image			PURIUM INC.

#### Additional Products

Product Name	Thermal Sensing Camera · NVR	IP Camera(IR)	People Counting	Indoor air quality sensor
Product Cost	5,000,000	300,000	3,000,000	1,000,000
Specifications	-Thermal Sensing Camera -Sensor: FLIR LWIR, Wavelength 8-14um -Measure Range: 30-40 degrees -Image Sensor: 1/2.8" 2.1 Megapixel Sony STARVIS -Lens: 3.6mm Fixed	-Sensor: 1/2.8" 2.1 Megapixel Sony STARVIS	-Sensor: 2 x 1/2.8"3 MP progressive scan -SMOS	Provides effective solutions based on collected amounts of ultra-fine dust & chemicals
	-NVR Input: 4ch POE Output: 1 HDMI -Customized firmware for Fever Detection Camera *Specifically for Thermal Sensing Camera *CCTV	Inegalizer Softmer Fixed, ICR IRLED: 24EA Power: PoE & DC12V	<ul> <li>-Lens: 2.8 or 3.6mm Fixed</li> <li>-IR LED: 1EA</li> <li>-Power: PoE &amp; DC12V</li> <li>-People count feature</li> </ul>	<ul> <li>Provide indoor air quality data which includes ultra fine dust, temperature, humidity, Carbon dioxide and VOCs</li> </ul>
Image				

Product Name	Tread plate sterilizer	Tread plate disinfectant	QR code reader (SM T-290)
Product Cost	1,000,000	10,000	1,000,000
Specifications	• Size : 1489(W)*729(D)*20(H) • Material : Stainless & Coil Mat	<ul> <li>Low toxicity and long lasting effect</li> <li>Safe from chemicals and heat</li> <li>Strong sterilizing effect with bacteria and other germs with low acidity</li> </ul>	<ul> <li>OR code scan and sends to managing server</li> <li>Sends QR code confirmation results from management server and notifies user through message and sound (QR code validity and expiry chect Sign up for application users (facility manager)</li> <li>Management ability through adding roles for additional facility staffs</li> <li>Provide reports for daily QR code scan</li> </ul>
Image			R



(Unit: Won, VAT included)

(Unit: Won, VAT included)

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Sanitizes the indoor space by blocking the inflow of ultra- fine dust, bacteria and harmful substances at the source.

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Cyclone Turbo Airshot

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9 Business sponsors Goodneighbors Excellence Design selection of Venture Nation Industry, Trade & Resources Product Registrati

🖉 굿네이버스

Eco-friendly sterilization · Antibacterial air curtain

ISO 9001:2015 ICT Convergence Quality Certified Certification of Industrial Convi

# Air Signature Smart IoT Air Shower



#### Carbon Nanotube / H13 Hepa filter

Strong LED antibacterial and disinfection

Total of 8 H13 grade HEPA filters installed 4 on each left and right, removing 99.9% of ultra-fine dust.

The HEPA filter and UV-A,C LED mounted on the discharge port effectively sterilizes destroying the tissues of bacteria & viruses.











Small and Medium enterprise