



The World's Leading Destratification & Air Purification Fan Manufacturer

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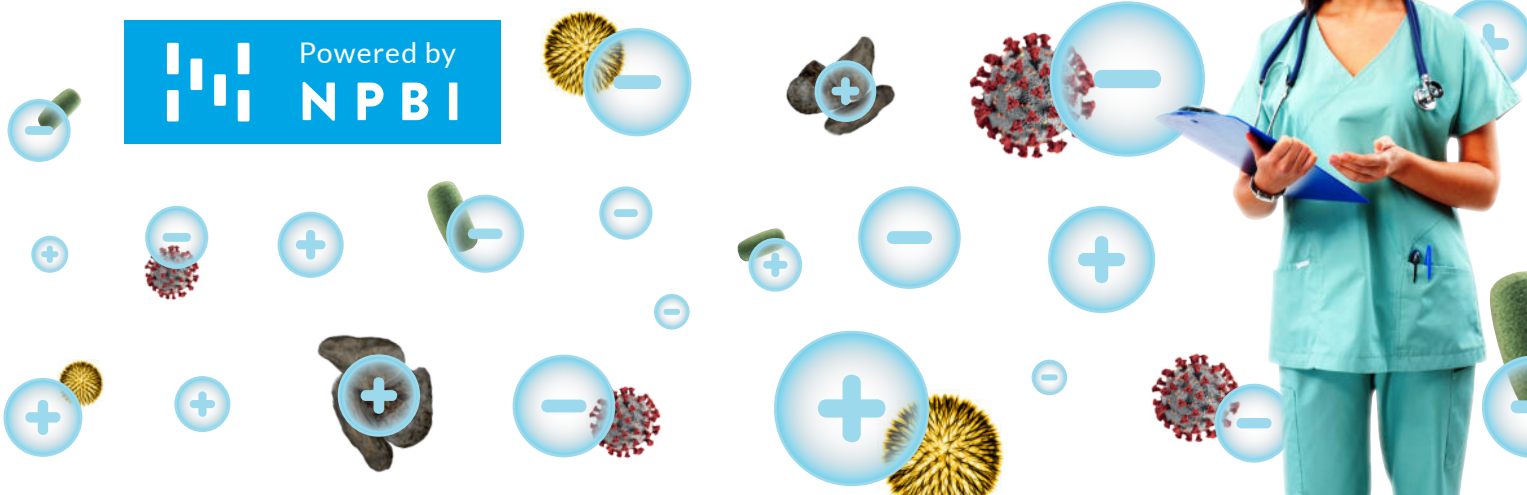
**STERILISE SPACES,  
KILL VIRUSES,  
REMOVE ODOURS,  
SAVE MONEY**



Neutralises up to 99.9%+ Of Pathogens (inc. COVID-19), Mould, Odours, & VOCs, Leaving You to Enjoy Clean, Fresh, Healthy Air



Powered by  
**NPBI**



# TRUST IN AIRIUS

Formed in 2004, we have revolutionised the air purification and energy reduction industry.



Airius has helped thousands of businesses, from SMEs to major blue chip companies make real improvements in air quality, as well as a significant reduction in energy usage.

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# What is the Airius PureAir<sup>+</sup> NPBI?



**T**he Airius PureAir<sup>+</sup> NPBI Series is a proven highly efficient air purification and surface cleaning system designed to deliver high levels of pathogen, particle and odour elimination in all types of indoor environments.

Featuring the latest in Needlepoint BiPolar Ionisation (NPBI<sup>®</sup>) technology from one of the world's leading manufacturers of indoor air quality systems - Global Plasma Solutions, the PureAir<sup>+</sup> NPBI Series uses the power of ions to provide continuous round-the-clock sterilisation, neutralising up to 99.9%+ of all known pathogens, VOCs and odours, in both the air and on all surfaces.

The PureAir<sup>+</sup> NPBI also provides all the features and benefits of the world's most popular destratification and airflow circulation fan, balancing temperatures, improving comfort, reducing heating and cooling costs and cutting carbon emissions.

## How does it work?



The PureAir<sup>+</sup> NPBI Series integrates advanced GPS NPBI<sup>®</sup> technology into the Airius World leading Destratification Fan System, providing the most efficient way of distributing high concentrations of positive (+) and negative (-) ions into complete internal spaces.

The ions polarity attracts them to all particles within the space, causing the particles to cluster together and make them filterable. They also bond with and neutralise pathogens, VOCs and odours by removing hydrogen atoms, breaking them down into their basic, harmless and odourless compounds, such as O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub> and H<sub>2</sub>O.

# PureAir+ NPBI Series

**T**he PureAir+ NPBI Series is the latest advancement in the Airius range of air and surface sterilisation fan systems.

Providing the highest level of purification and protection available, the PureAir+ NPBI Series uses cutting edge ionisation technology to radically improve indoor air quality (IAQ), inactivating up to 99.9%+ of all known pathogens (including COVID-19), germs, bacteria, gases, VOCs (Volatile Organic Compounds), mould and odours in any indoor space. It also optimises and improves the performance of existing air filtration systems by attracting even the smallest of particles together, making them large enough to be filterable.

This combination of industry leading NPBI® purification technology with Airius' patented columnar laminar airflow circulation, means that the PureAir+ NPBI Series is able to circulate its natural cleaning ions throughout all types of internal spaces more effectively than any competing purification fan.

In addition, while the air is continuously being purified the space is also being thermally equalised (destratification). This results in significantly improved HVAC efficiency and occupant comfort levels, offering potential energy savings of up to 50% by balancing floor and ceiling temperatures.

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Suspended ceiling  
installation



## Benefits

- Advanced NeedlePoint BiPolar Ionisation
- Up to 99.9%+ inactivation of surface pathogens
- Up to 99.9%+ inactivation of airborne pathogens
- Up to 99.9%+ reduction of mould & odours
- Up to 99.9%+ reduction of gases, vapours & VOCs
- Makes sub-micron (<0.3µm) particles filterable, eliminating pet dander, pollen, dust etc.
- Non-UV system with no bulbs or parts to replace
- 120 day money back guarantee (UK only)
- Round-the-clock air and surface sterilisation
- Reduces outdoor air intake required by 75%
- Tested & certified technology (UL, FAA, Ozone)
- Cost effective IAQ & infection control solution
- Designed for all types of buildings
- Keeps HVAC coils clean without using UV
- Small, versatile, easy to install ductless units
- Self cleaning purification system
- 5 year warranty





Call Airius today to receive  
a fully tailored quotation for your building.

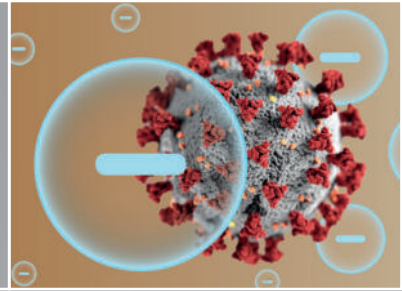
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## All-inclusive features

### COVID-19

GPS NPBI® technology is one of the first to be tested on a live strain of SARS-CoV-2 virus, showing an inactivation rate of over 99.4%.



### Tested & Certified

NPBI® is Certified by laboratories and governing bodies, including the EPA, UL, CE, US Green Building Council and the most stringent RTCA DO-150 Aircraft Standard.



### Ozone Free

Validated in third party testing as a zero Ozone emissions technology, achieving the highest UL 2998 certification standard.



### Fresh Air Indoors

By improving the quality of your indoor air with the PureAir+ System, outdoor air intake levels can be reduced by up to 75%, saving you money.



Needle point carbon fibre strands emitting positive and negative ions, integrated within Airius' patented venturi nozzle.



Available to match any RAL  
colour code

# The Power of Ions

Incorporating industry leading NPBI® technology, the PureAir+ NPBI Series purifies air in exactly the same way as Mother Nature.

Ions are all around us. They occur everywhere outdoors but are found in highest quantities in rural and countryside areas. They are created by the energy released from rushing water, waves and even sunlight and are one of the natural ways our planet cleans our air.

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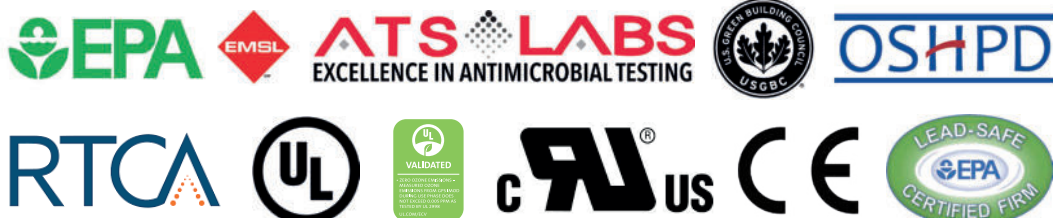
An ion is a molecule or atom that is positively or negatively charged, meaning it must gain or lose an electron to become neutral. This attracts ions to particles of an opposing charge and when they bond they cause a reaction, neutralising contaminants, eliminating odours and cleaning the environment around us.

When bonding with a pathogen such as a virus, ions react as Hydroxyl Radicals (OH), which removes the pathogen of a hydrogen atom. This disrupts the cell membrane, exposing and killing the pathogen inside. This process also neutralises VOCs and odours by breaking them down into their basic harmless compounds. When an ion bonds with other airborne particles such as dust and pollen, it shares its charge, attracting it to other particles. This causes a snowball effect that makes the particles large enough to be filterable or fall to the floor.

Ions have also been shown to have a positive effect on overall health and well-being, which is why being in the countryside, by a waterfall or the waves of the sea can be so relaxing and effective at relieving stress.

## Tested & Certified

The Laboratories, Universities and Organisations below and in the table opposite are but a few of the certifying bodies to have tested GPS NPBI® Technology.





# NPBI® Independent Test Results

	Reduction	Time Period	Tested By
COVID-19 (SARS-CoV-2)	99.4%	30 minutes	Aviation Clean Air
BIRD FLU	99.9%	10 minutes	Retroscreen Virology
INFLUENZA	99.7%	25 minutes	Kitasato Institute Medical Centre
LEGIONELLA	99.7%	30 minutes	Global Plasma Solutions
FELINE CORONAVIRUS	99.7%	35 minutes	Kitasato Institute Medical Centre
E COLI	99.6%	15 minutes	EMSL Analytical Inc
COXSACKIEVIRUS	98.9%	3.3 seconds	Kitasato Research Centre of Environmental Sciences
POLIO	98.9%	3.3 seconds	Kitasato Research Centre of Environmental Sciences
MRSA	96.2%	30 minutes	EMSL Analytical Inc
NOVOVIRUS	93.5%	30 minutes	Global Plasma Solutions
CORONAVIRUSES	90.0%	30 minutes	Global Plasma Solutions
CLOSTRIDIUM DIFFICILE	86.8%	30 minutes	EMSL Analytical Inc
SARS	73.4%	3.3 seconds	Retroscreen Virology
TUBERCULOSIS	69.0%	60 minutes	EMSL Analytical Inc
MOULD SPORES	99.5%	24 hours	Green Clean Air
<b>PARTICULATE REDUCTION</b>			
Size = 0.3µm	87.2%	48 hours	Calgary Int. Airport, NAV Canada
Size = 0.5µm	95.4%	48 hours	Calgary Int. Airport, NAV Canada
Size = 1.0µm	95.8%	48 hours	Calgary Int. Airport, NAV Canada
NOXIOUS ODOURS	Neutralised	24 hours	Edmonton Int. Airport, NAV Canada
OUTDOOR AIR INTAKE	75%	-	Greer High School, SC

**Disclaimer:** All the tests above were performed on GPS BiPolar Ionisation technologies carried out by accredited 3rd party organisations, institutions and businesses. Multiple data points are used to formulate performance validation statements. Contact Airius for further details on any of these tests. Ionisation products are not medical devices and no medical claims are made.

## CORONAVIRUS

The GPS NPBI® technology incorporated within the PureAir® NPBI Series is one of the first to have been tested on a live strain of SARS-CoV-2 and not a surrogate or similar virus.

The testing was carried out by 'Aviation Clean Air' in a real world environment against the SARS-CoV-2 virus (COVID-19), which showed an inactivation rate of 84.2% within 10 minutes, 92.6% within 15 minutes and 99.4% within 30 minutes.

It is important to note that no medical claims are made.

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## Additional Research Supporting BiPolar Ionisation Technologies

BiPolar Ionisation research has also been conducted by numerous parties throughout the world to measure the efficacy of BiPolar Ionisation, showing it to be highly effective in inactivating or reducing:

**Disclaimer:** The research shown in the table opposite supports the efficacy of BiPolar Ionisation, attained through collaborative research with organisations globally. Multiple data points are used to formulate performance validation statements. Contact Airius for further details on any of these tests. Ionisation products are not medical devices and no medical claims are made.

	Tested By
SERRATIA BACTERIUM	Harvard School of Public Health
ENTEROCOCCUS	Aachen University of Applied Sciences
STAPHYLOCOCCUS	Aachen University of Applied Sciences
SARCINA	Aachen University of Applied Sciences
MICROCOCCUS	Aachen University of Applied Sciences
BACILLUS SUBTILIS	Aachen University of Applied Sciences
PSEUDOMONAS	Medical School of Luebeck
ENTEROCOCCUS	Medical School of Luebeck
WHITE STAPHYLOCOCCUS	Shanghai Municipal Center for Disease Control
CANDIDA	Shanghai Municipal Center for Disease Control
CLADOSPORIUM	Ishikawa Health Service Association
ASPERGILLUS	Aachen University of Applied Sciences
PENICILLIUM	Aachen University of Applied Sciences
STACHYBOTRYS	Aachen University of Applied Sciences
ALTERNARIA	Aachen University of Applied Sciences
MUCOR	Aachen University of Applied Sciences
MITES	School of Advanced Sciences, Hiroshima University
POLLENS	School of Advanced Sciences, Hiroshima University
<b>VOCs</b>	Green Clean Air
Acetone	Green Clean Air
Chloromethane	Green Clean Air
Dichlorodifluoromethane	Green Clean Air
Ethyl Acetate	Green Clean Air
Heptane	Green Clean Air
Methylene Chloride	Green Clean Air
Methyl Ethyl Ketone	Green Clean Air
Tetrachloroethene	Green Clean Air
Toluene	Green Clean Air
Trichlorofluoromethane	Green Clean Air

**Please Note:** The use of PureAir® NPBI or GPS NPBI® technology is not intended to take the place of reasonable precautions to prevent the transmission of pathogens. It is important to comply with all applicable public health laws and guidelines issued by federal, state, and local governments and health authorities as well as official guidance published by the Centers for Disease Control and Prevention (CDC), including but not limited to social distancing, hand hygiene, cough etiquette, and the use of face masks.

# Technical Data

Every Airius PureAir+ Series fan features a top of the range, highly reliable & energy efficient motor, independently tested by BSRIA, along with the latest, cutting edge GPS NPBI® purification system.

## Unit Dimensions & Weights

	Model 10	Model 15	Model 25	Model 45
<b>Range</b>	PureAir+ NPBI	PureAir+ NPBI	PureAir+ NPBI	PureAir+ NPBI
<b>Ceiling Heights<sup>1</sup></b>	2.5m - 4m	4m - 6m	6m - 8m	8m - 10m
<b>Nozzle Heights<sup>1</sup></b>	2m - 3m	3.5m - 4.5m	5.5m - 6.5m	7.5m - 9m
<b>Dia. Coverage<sup>1</sup></b>	Up to 12m	Up to 14m	Up to 16m	Up to 16m
<b>Floor Area<sup>1</sup></b>	Up to 113m <sup>2</sup>	Up to 154m <sup>2</sup>	Up to 201m <sup>2</sup>	Up to 201m <sup>2</sup>
<b>Volts<sup>2</sup></b>	230	230	230	230
<b>Watts<sup>2</sup></b>	24	27	43	54
<b>RPM<sup>2</sup></b>	980	1230	1450	1450
<b>CFM<sup>2</sup></b>	318	406	459	595
<b>m<sup>3</sup>/hr<sup>1</sup></b>	540	690	780	1010
<b>AMPS<sup>2</sup></b>	0.06	0.06	0.14	0.19
<b>Operating Temp<sup>2</sup></b>	-20°C - 70°C	-20°C - 70°C	-20°C - 70°C	-25°C - 70°C
<b>Thermal Shut Off<sup>1</sup></b>	110°C	110°C	110°C	135°C
<b>Reset Temp<sup>1</sup></b>	90°C	90°C	90°C	125°C
<b>Noise Level<sup>2</sup></b>	0 - 21dB(A)	0 - 21dB(A)	0 - 31dB(A)	0 - 35dB(A)
<b>Height (Inc Handle)</b>	444mm	546mm	546mm	605mm
<b>Height</b>	311mm	413mm	413mm	455mm
<b>Diameter</b>	325mm	325mm	325mm	375mm
<b>Weight</b>	3.2 KG	4.1 KG	4.1 KG	6.3 KG
<b>Shipping Height</b>	345mm	445mm	445mm	495mm
<b>Shipping Width</b>	340mm	340mm	340mm	370mm
<b>Shipping Length</b>	340mm	340mm	340mm	370mm
<b>Shipping Weight</b>	5.05 KG	5.35 KG	5.35 KG	6.90 KG

Data above is calculated at 50Hz.

<sup>1</sup>Motor data provided by motor manufacturer and is subject to change at any time.

<sup>2</sup>Noise Levels recorded at floor level from units installed at maximum ceiling height. Accurate as of February 2020. Each facility has unique fluid dynamics, please contact supplier to specify your system.



## Series warranty

All Airius PureAir+ NPBI Series fans come with a full 5 year Warranty. Simply return defective units to Airius, carriage paid and upon receipt Airius will dispatch a new unit by return carriage fully paid.

To avoid refurbishment and cleaning charges, all units returned must adhere to the returns criteria.

For further details email [info@airius.co.uk](mailto:info@airius.co.uk) or call on +44 (0) 1202 554200.



## NPBI® Self Cleaning

In addition to having no purification parts to replace, such as filters or UV bulbs, the PureAir+'s integrated NPBI® system is also auto cleaning. This uses a small arm that rotates at pre set intervals to brush off dust or other particles from the carbon strand emitter points, ensuring your PureAir+ NPBI unit continues to provide the highest level of air and surface purification year after year.

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## Installation

Typically, Airius PureAir fans are installed in the ceiling with the nozzle pointing downwards directly above an open floor area.

PureAir units are easy to install using simple hooks and chains/cables; an installation guide is available.



# Case Studies

GPS NPBI® Technology has been installed throughout a wide range of industries, including Hospitals, Schools, Airports, Offices and Manufacturing Facilities.

## Greer High School



Greer High School was utilising an outdated HVAC system that was bringing in excessive amounts of outside air, resulting in wasted energy, high humidity and mould growth.

By integrating NPBI® technology within their HVAC system the School was able to reduce the intake of outside air per person from 17 CFM, to 5 CFM, whilst improving air quality at the same time.

Mould growth was also abated following the reduction in humidity.

They also benefited from:

- \$10,000 energy saving per year
- Vastly reduced humidity
- Mould growth neutralised
- Clean and safe space for students & teachers
- Improved IAQ benefits alertness
- Fewer pathogens means fewer illnesses



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## Boston Children's Hospital



Boston Children's Hospital needed to upgrade their HVAC system to deal with noxious diesel fumes and street odours that their existing UV light system was unable to control.

Within 48 hours of installation the NPBI® system had completely eliminated the diesel fumes and other unpleasant odours. This avoided expensive renovation costs, higher energy consumption and ensured a safe, clean space for the children.

- All problem odours eliminated
- Expensive renovations avoided
- Increase in energy costs avoided
- Clean environment for patients







# Amalie Arena

During renovations the redesign of the Amalie Arena's HVAC system required approximately 202,000 CFM of outside air to dilute contaminants, produce acceptable indoor air quality and meet the ASHRAE Ventilation Rate Procedure for indoor air quality. These upgrades would have cost millions of dollars.



By installing NPBI® technology to purify the indoor air, the outside air intake was reduced to 108,000 CFM, saving 94,000 CFM or approx. 700+ tons of cooling capacity.

- \$1 million saved in capital spend
- \$115,000 saved in annual energy costs
- Significant reduction in carbon emissions
- Sports stadium odours neutralised
- Cost effective public building pathogen control system



# The Learning Experience



Child care franchise The Learning Experience®, wanted to reduce their monthly heating and cooling costs. Annual HVAC maintenance for the larger air handling equipment was also unpredictable and often incurred unforeseen additional expenses.

By using NPBI® technology to purify the air the centre was able to reduce outside air intake by approx. 1,500 CFM, whilst also neutralising airborne pathogens and reducing the level of unpleasant VOCs and odours.

- Avoided costly equipment upgrades
- 1,500 CFM reduction in outside air intake requirement

- Provides pathogen neutralisation
- Minimises cross contamination between children and staff
- Unpleasant odours neutralised



# WeWork Real Estate

WeWork is a 3.5 billion real estate business converting and managing shared office spaces. With increasing occupancy in their buildings, more air required treatment to the high level of indoor air quality maintained by WeWork.



By installing NPBI® WeWork were able to specify smaller air-handling equipment, reducing capital costs and upgrade time-frames, saving over 50% in overall HVAC renovation costs.

- 50%+ savings in HVAC renovation costs
- Significant reduction in ongoing cooling costs
- Neutralises pathogens and minimises cross contamination between occupants
- Maintains ideal conditions for optimum staff productivity



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