New Zealand

Airius PureAir

Active Air Purification System

systemair

AIRIUS PureAir

Systemair NZ is a wholly-owned subsidiary of global HVAC leader Systemair Group. With 28 production facilities and sales organisations in 50+ countries, Systemair Group and Systemair NZ are **#ByYourSide.**

Simplicity and reliability:
The values and business concepts of Systemair Group are core; manufacture and market high-quality ventilation products. Based on our Group business concept and values, and with our customers in focus, we aim to be your most efficient and helpful partner in mastering your indoor air quality challenges.

Selection software:
We save you time and money with our fansSelect selection software and REVit plugin. Transposition errors caused by manually entering BIM data is a thing of the past.

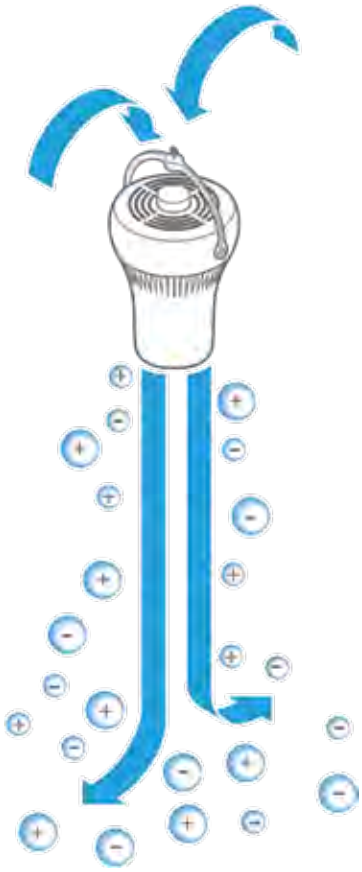
Green Ventilation:
As the Green Ventilation solutions leader, our products have outstanding energy efficiency combined with well-thought-out material consumption and production methods. We actively develop solutions and techniques such as heat recovery, night cooling, and demand-control-ventilation for the New Zealand building market.

Quality and customer experience:
Your customer experience is always our priority. When you need an indoor air quality solution, we manage the process with you from quote to despatch. Our Customer Service Group is with you for the long-haul, just like our fans.

Testing:
We don't cut corners. Manufactured to the highest standard, we test every fan before leaving the factory for quality and performance. On-site acceptance testing is available by request.

Breathe Freely

The Airius PureAir active air purification system, featuring patented Needle Point Bipolar Ionization (NPBI®), is ozone-free and can be deployed across any indoor space. NPBI technology can be found in over a quarter million installations worldwide.



Applications

- Schools & Universities
- Grocery Stores
- Gyms & Fitness Centers
- Healthcare
- Hospitality
- Worship Facilities
- Offices
- Retail
- Manufacturing
- Airports

A Proven Air Cleaning Process

People spend 90% of their time indoors, inhaling contaminants such as dust, pollen, dander, odors, mold, bacteria, and viruses. The Airius PureAir® system inactivates pathogens, bacteria, mold, odors and provides indoor spaces with safe, clean air.

Target particulates

Ions combine with particles suspended in the air. They begin to cluster making them larger and easier to capture in filtration systems.

Neutralize odors

Neutralize odors from chemicals, pets, cooking, and other sources by breaking them down into basic harmless compounds. Freshen indoor air and substantially reduce odor causing VOCs.

Reduce pathogens

Contact with ions disrupts pathogens' surface proteins, rendering them inactive.

Save Energy

Providing cleaner air can reduce the amount of outside air needed to keep the space fresh. This can lead to savings up to 30% on energy consumption. In addition, the energy savings from destratification can increase savings further.

Breathe freely with safe clean indoor air. Ozone free operation with no maintenance.

NPBI® is a registered trademark of Global Plasma Solutions, Inc.

NPBI Technology Testing Summary

Courtesy of Global Plasma Solutions

Sensitivity Testing

A petri dish containing a pathogen is placed underneath a laboratory hood, then monitored to assess the pathogen's reactivity to NPBI over time. This controlled environment allows for comparison across different types of pathogens. Sensitivity Testing is not a measure of pathogen inactivation in the air.

Pathogen	Time in Chamber	Rate of Reduction	Test Agency
Norovirus†	30 minutes	93.5%	ATS Labs
Human Coronavirus 229E*	60 minutes	90.0%	Analytical Lab Group
Legionella	30 minutes	99.7%	EMSL
Clostridium Difficile	30 minutes	86.8%	EMSL

Simulation Testing

Simulation testing measures in-air inactivation of pathogens. Counts of an airborne pathogen are taken before and after aerosolizing that pathogen into a sealed, unoccupied laboratory environmental room installed with NPBI technology.

Pathogen	Time in Chamber	Rate of Reduction	Test Agency
Tuberculosis	60 minutes	69.0%	EMSL
MRSA	30 minutes	96.2%	EMSL
Staphylococcus	30 minutes	96.2%	EMSL
E.coli	15 minutes	99.9%	EMSL

Specialty Testing

Unoccupied laboratory test environments are designed to evaluate NPBI performance in conditions unique to particular industries or customers and may include special circumstances such as higher than average ion concentrations. Review individual test results for details. The 2020 SARS-CoV-2 specialty testing conducted by Innovative Bioanalysis is not a measure of pathogen inactivation in the air.

Pathogen	Time in Chamber	Rate of Reduction	Test Agency
SARS-CoV-2	30 minutes	99.9% Inactivation rate measured on surfaces	EMSL

Disclaimer:
† Surrogate for Norovirus, actual strain tested was Feline Calicivirus, ATCC VR-782, Strain F-9
**Human Coronavirus 229 is not SARS-CoV-2*
Please note that testing the reduction rate of SARS-Cov-2 with GPS' NPBI is an evolving process and additional testing is anticipated to be conducted in the future. While GPS is not registered with the EPA as a surface disinfectant, this testing demonstrates GPS' performance on surfaces.

The use of this 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) (https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html), including but not limited to social distancing, hand hygiene, cough etiquette, and the use of face masks.

The power of ions + continuous airflow distribution

What is an ion?

An ion is a molecule that is positively or negatively charged, meaning it must gain or release electrons to become neutral.

Naturally occurring ions are everywhere outdoors constantly working to clean the air. Ions are created from rushing water, sunlight and even approaching thunderstorms.

Ions near waterfalls have been measured at upwards of

19,000 ions per cc

Indoor ion concentrations in buildings without ionizers generally range from

1,000-3,000 ions per cc

The Airius PureAir fan

The Airius PureAir fans generate thousands of positive and negative ions per second to safely inactivate pathogens. An ion's lifetime can be as short as 30 seconds. By locating the PureAir system within the occupied space, a high concentration of ions are continuously delivered to the air and surfaces below. When ions encounter pathogens, they disrupt the pathogens' surface proteins, rendering them inactive. In addition, ions attach to particles, where they combine, become larger and are more easily filtered from the air.

A network of PureAir fans across a space provide full clean air coverage and the airflow improves comfort and ventilation. By implementing the ion delivery system into a space, rather than in the HVAC system, the ionized air is continuously circulated as close to occupant level where we live and breathe. The PureAir system can be installed within any facility and are useful in buildings that lack forced air systems such as college campuses with steam heating.

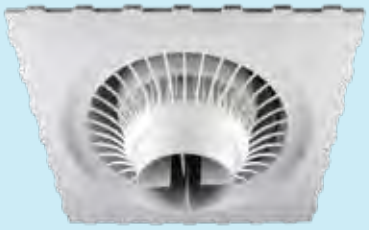
Ion density

In room ion density is dependent on proximity of the PureAir fans to the occupants, fan airflow rates, and deployed location within the building.

Free Hanging Airius PureAir fans

Buildings with open, exposed structure

Suspended Airius PureAir Fans



Buildings with acoustic ceiling tiles

Auto-cleaning technology

Auto-cleaning feature ensures sustained ion output over time. Ion output can decrease without this feature, in addition to accumulation of humidity and other material buildup. The auto-cleaning feature performs daily wipes of ion emitter brushes, which prevent buildup. The resulting benefit is optimal lifetime performance.

Overview

- **24/7 ion generation for actively treating in-room air**
- **Add NPBI technology into buildings without forced air systems**
- **Ionized air stream can target high touch and high traffic areas**
- **Easy to install in new or existing buildings**
- **Compact size for integration between lighting, duct work, signage, or other ceiling mounted systems**
- **Multiple fan capacities, voltages, and colors available**
- **3-year warranty**

Disclaimer: Global Plasma Solutions (GPS) uses multiple data points to formulate performance validation statements. NPBI technology is used in a wide range of applications across diverse environmental conditions. Since locations will vary, clients should evaluate their individual application and environmental conditions when making an assessment regarding the technology's potential benefits.

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All technical information and advice given here are based on GPS previous experiences and/or test results. Airius gives this information to the best of its knowledge but assumes no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. The above information is subject to change.

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