



LAB TESTED AND PROVEN TO REDUCE CORONAVIRUS OVER 99.92% IN 30 MINUTES

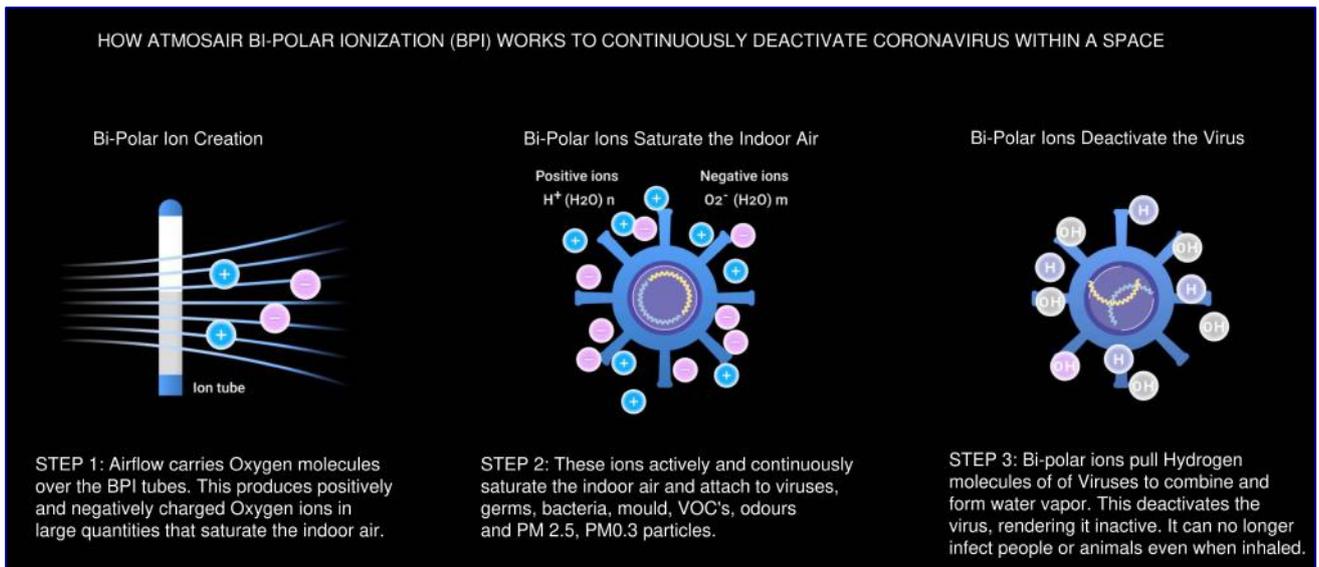
OUR BIPOLAR IONISATION UNITS CONTINUOUSLY
STERILIZE AND DISINFECT THE AIR THAT YOU BREATHE

*Feel safe at work or home again... breathe fresh, clean and
pathogen free "Swiss Mountain-Top Pure" indoor air again.*

Benefits of ProMedUSA + AtmosAir Bi-Polar Ionization Technology

- AtmosAir Bipolar Ionization Continuously Disinfects and Decontaminates the air that you breathe and the surfaces inside that space, including SARS-CoV-2 and all its variants.
- Viral, Microbial and Pathogen Reduction – AtmosAir Bipolar technology is an active and continuous disinfectant, continuously removing Viruses, Bacteria, Mould, Odours, PM10, PM2.5, and PM0.3 Particles, VOC's, and Allergens from the air you breathe.
- Recent tests performed by Microchem Laboratory, one of the world's preeminent laboratories for testing sanitizing products registered by the EPA and FDA, proved the presence of coronavirus was reduced by 99.92% within 30 minutes of exposure to AtmosAir's BPI technology.
- Safer, Cleaner , Virus Free And Less Expensive Indoor Air: – On the 5th of February 2022 an ASHRAE Study at Fresno State University proved that a MERV 13 air filter combined with AtmosAir Bipolar Ionization was almost IDENTICAL in performance to that of a HEPA high efficiency filter. It's now possible to accomplish HEPA level filtration with considerably cheaper filter replacement, HEPA HVAC retrofitting expenses, pressure drop, increased HVAC maintenance costs, and increased energy costs associated with all of the previous points.
- Reduction in Demand Controlled Ventilation outdoor air requirements: With an engineered air purification approach, ASHRAE's 62.1 Guidelines allow you to reduce the volume of outside air while providing greatly increased indoor air quality. We often see energy savings of 5% to as much as 25%
- Minimal maintenance is needed. Once every 2 years (17,600 hours) replace the bi-polar ionisation tubes.

How AtmosAir Bi-Polar Ionisation Works

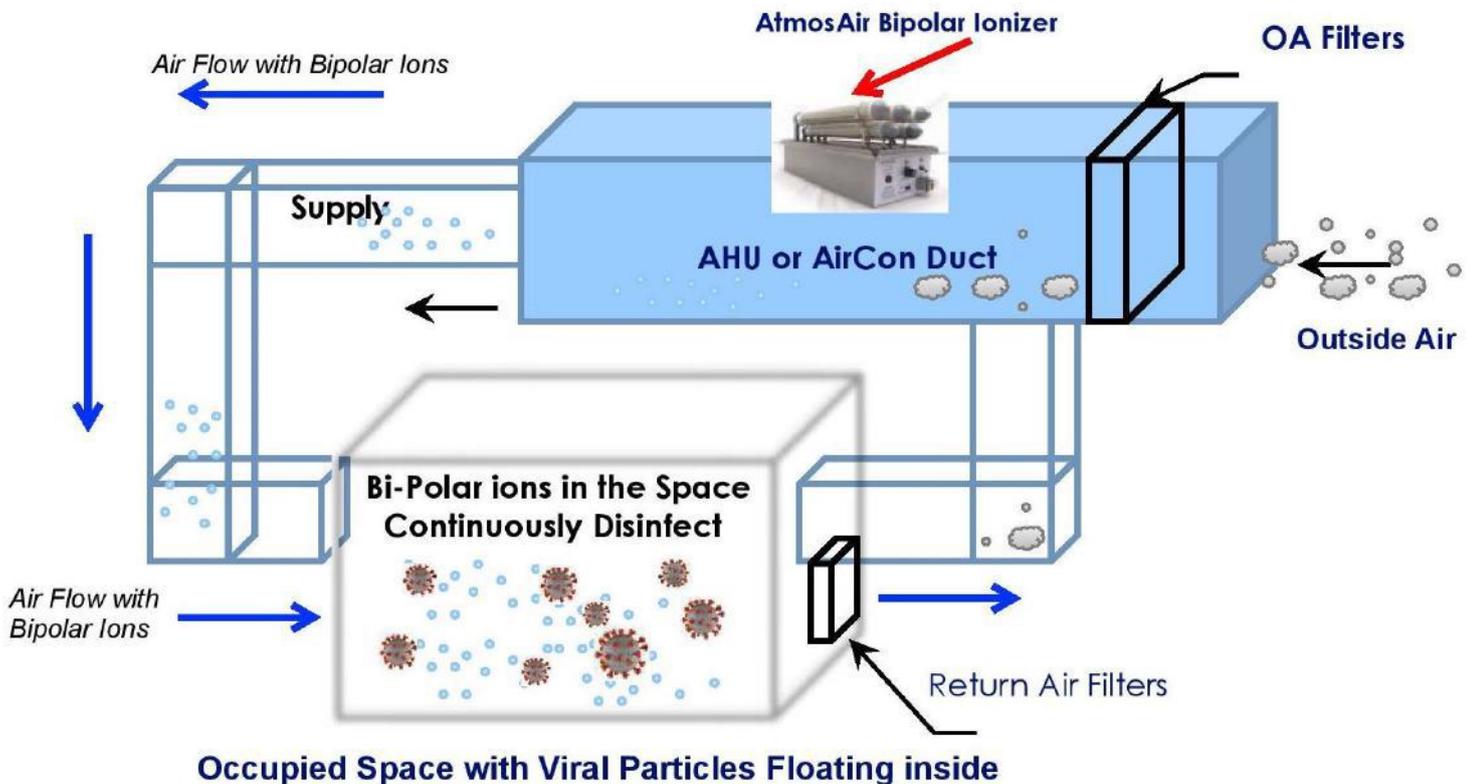


Covid-19 and other viruses are spread through aerosol droplets floating in the air that we inhale. AtmosAir Bi-Polar Ionisation (BPI) is the only technology that continuously saturates the indoor air with powerful + and - charged Oxygen ions where you actually breathe and continuously decontaminates and disinfects that space and the surfaces inside it. AtmosAir technology decontaminates the air inside your room.

Here's how it works:

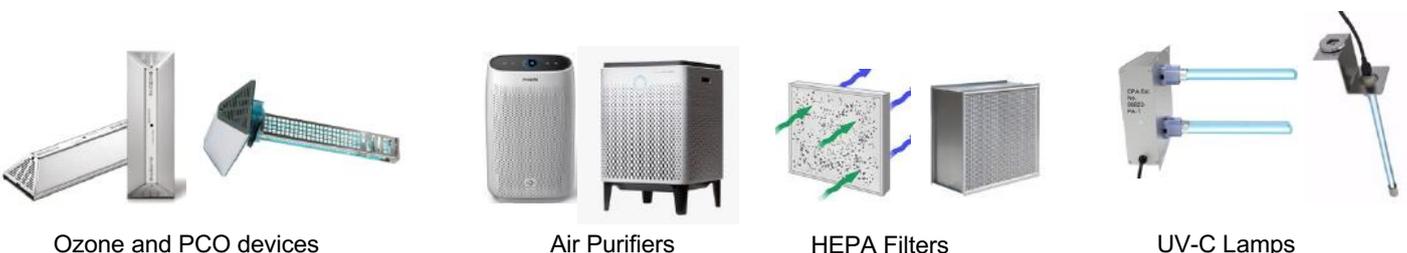
- Air carries Oxygen molecules over the bi-polar ionization tubes. Our Bi-polar ionization tubes create an energy field (cold plasma corona discharge), producing highly energized (12.7ev) positively and negatively charged Oxygen ions. These are bi-polar ions that are so highly charged they survive for 1-2 minutes in the space.
- The 12.7EV energy level is essential to cause the electrons in the oxygen atoms outer orbit to become "excited" to the next orbital level – producing the + and – Oxygen ions with sufficient energy to deactivate viruses.
- The airflow distributes the energized ions into all the spaces served by the HVAC system in an in-duct installation, or into the applicable space if a standalone unit is used. It's that simple and elegant! The beauty of the AtmosAir system is just how easily it integrates into existing commercial and residential HVAC systems.
- AtmosAir bipolar ions seek out contaminants in a space. They don't wait for the pollutants to find their way into the filter within the air handler. Instead, air ions go to the contaminants in the space where you breathe - minimizing contaminants at their source.

AtmosAir is a Continuous, Active Disinfection Solution



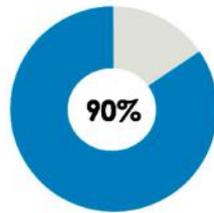
- Virus particles and other contaminants float in the air at your breathing level.
- They are not sucked back into the aircon return duct where they might be filtered out. The virus load floats in the air where you breathe, which is why Covid-19 is so easily transmitted.
- AtmosAir's powerfully charged positive and negative Oxygen ions (Bipolar ions) work continuously inside the room or space where you are breathing and deactivate viruses in the air to disinfect and decontaminate that indoor air and the surfaces that you touch.
- Only AtmosAir works Actively INSIDE the space you are in. All other systems are Passive and need the pathogen particles to first be sucked back into the aircon where they might pass the HEPA filter or PCO or UVC device.

These are examples of passive systems:

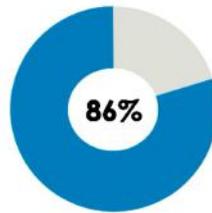


AtmosAir Bi-Polar Ionisation

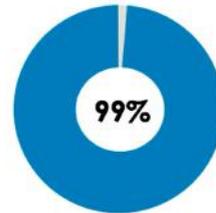
AtmosAir - Independently Tested and Verified Under Real World Conditions



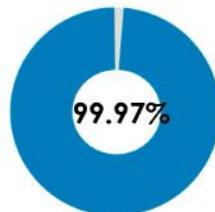
Reduction in VOC's
Source: Univ. of Syracuse 2019



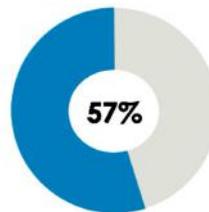
Reduction in PM0.3
Source: ETL CADR Testing



Reduction in E.Coli and MRSA
Source: ATL Labs, 2016 - 45 Minute Exposure



Reduction in Human Coronavirus Strain 229E, ATCC VR-740 in 30 Minutes
Source: Microchem Laboratory June 2020



Reduction in C.Diff
Source: ATL Labs, 2016 - 6 Hr exposure

Certifications:

- US EPA US Energy Star Certification
- Underwriters Laboratories UL 867
- Underwriters Laboratories UL 1995
- Underwriters Laboratories UL 2998
- EU Standard EN 60335-2-40:2003
- EU Standard EN 61000-6-3:2001
- EU Standard EN 61000-6-1:2001
- EU Standard EN 60204-1:2006
- OPA 2807-10
- OPA2808-10
- ANSI / AHAM AC-1 2002
- ASHRAE 62.1 IAQ Procedure Compliant
- 125 DUST CADR
- 190 MOULD CADR



Model	CMH / M ²	Application	Photo
AirPro-1 AirPro-Max Portable Bi-Polar Ioniser	Spaces of up to 100 M ²	Small, Portable and lightweight (1kg) bi-polar ioniser for rooms of up to 100 M ²	
RIA Portable Air Sterilizer	Approximately 100 to 130 M ²	Residential applications, Hotel Rooms, Offices, Clinics, Hospital Rooms, Classrooms	
SGFC-400	340 – 1,700 CMH Approximately 50 M ²	Smaller residential applications, Hotel Rooms, Fan Coils, Heat Pumps, Cassette, and wall mount Aircons	
SGMH-880 SGMH-882 (1 or 2 tubes)	1,360 to 8,500 CMH Approximately 112 - 178 M ²	Virtually any application from wall mount to in-duct	
SG- 500F (5-“F” Tubes)	10,000 to 17,000 CMH Approximately 400-550 M ²	Commercial AHU's And In-duct installations	
SG- 508F (8-“F” Tubes)	17,00 to 25,500 CMH Approximately Up to 775 M ²	Commercial AHU's And In-duct installations	
AtmosAware Sensor	N/A	The AtmosAware system allows for real time monitoring of CO2, PM2.5, Total Volatile Organic Compounds (TVOC), and also monitors for temperature, humidity, illumination, and noise level	
Real Time IAQ Monitoring Data	N/A	Building management and continuous IAQ monitoring with a tablet, computer or smartphone	

Dr. Philip Tierno, Jr. “Dr. Germ”

Professor of Microbiology and Pathology
New York University School of Medicine
NYU Langone Medical Center



Dr. Philip M. Tierno, Jr. Professor of Microbiology and Pathology at New York University and NYU Langone Medical Center reviewed published research and testing on AtmosAir Bipolar purification technology and wrote in a recent paper:

“There is only one technology that satisfies all of the tenants for providing clean indoor air quality for an entire building, which uses low energy, is effective against bacteria, viruses and mold fungi (whether in air or on surfaces), neutralizes particulates, breaks down VOC’s, eliminates unpleasant odors, eliminates static electricity and produces no chemical or harmful by-products (including NO ozone production) and this is accomplished by the production of positive and negative ions (bipolar ionization). That system is AtmosAir Bipolar Ionization.

On 23 March 2020, Dr. Tierno wrote in another paper:

“AtmosAir Bipolar Ionization causes production of clusters of bi-polar ions and hydroxyl radicals which attach to the surface of microbes removing hydrogen from the microbe’s cell wall, thereby killing them. It can reduce 99.99% of microbes in a matter of minutes. Ions work in a continuous fashion to disinfect the air.”

Since the virus is spread via direct and indirect contact, the **continuous application** of Bi-Polar Ions emitted to ambient air by the AtmosAir System continuously disinfect both the breathing space and surfaces. It is the most effective system for continuously cleaning and decontaminating indoor air.

As mentioned above, the possibility of aerosolized spread of COVID-19 and the ability of particles to hang in the air for extended periods of time, would make the consideration of an active air cleaning strategy even more prudent.

Also, because Coronaviruses are enveloped viruses, they are easier to kill compared to naked viruses like Noroviruses. AtmosAir has shown significant reduction of bacteria and viruses in both laboratory and in situ testing. Spaces like airport terminals where travellers from affected regions may carry and spread this virus could implement the AtmosAir bi-polar ionization air cleaning system as a step to combat the spread of illness.”

TEST RESULTS FROM MICROCHEM LABORATORY

HUMAN CORONAVIRUS STRAIN 229E ATCC VR-740

Surface test 10 June 2020
99.92% reduction in 30 minutes

Table 2: Test Results at 30 minutes

		Test Results Replicate 1 30 minutes	Test Results Replicate 2 30 minutes	Test Results Replicate 3 30 minutes
Cell Control		0 0 0 0	0 0 0 0	0 0 0 0
Dilution	10 ⁻¹	0 0 0 +	0 0 0 +	0 0 0 0
	10 ⁻²	0 0 0 0	0 0 0 0	0 0 0 0
	10 ⁻³	0 0 0 0	0 0 0 0	0 0 0 0
	10 ⁻⁴	0 0 0 0	0 0 0 0	0 0 0 0
	10 ⁻⁵	0 0 0 0	0 0 0 0	0 0 0 0
TCID ₅₀ per 0.1 ml		0.75 Log ₁₀	0.75 Log ₁₀	≤0.50 Log ₁₀
TCID ₅₀ per Carrier		1.05 Log ₁₀	1.05 Log ₁₀	≤0.80 Log ₁₀
Average Log ₁₀ Reduction		2.78 Log ₁₀		
Average Percent Reduction		99.92%		

Key: + = Virus recovered; 0 = Virus not recovered and/or no cytotoxicity observed;
T = Cytotoxicity observed; [†]Taking cytotoxicity and neutralization controls into account.

Surface test on fabric mask 11 Sept 2020
Over 99.44% reduction in 30 minute test

Table 2: Test Results- Grey Fabric

		Test Sample for Grey Fabric - 15 minutes	Test Sample for Grey Fabric - 30 minutes
Cell Control		0 0 0 0	0 0 0 0
Dilution	10 ^{-1.30}	0 0 0 0	0 0 0 0
	10 ^{-2.30}	0 0 0 0	0 0 0 0
	10 ^{-3.30}	0 0 0 0	0 0 0 0
	10 ^{-4.30}	0 0 0 0	0 0 0 0
	10 ^{-5.30}	0 0 0 0	0 0 0 0
	10 ^{-6.30}	0 0 0 0	0 0 0 0
TCID ₅₀ per 0.1 ml		≤ 0.80 Log ₁₀	≤ 0.80 Log ₁₀
Log Reduction		≥2.25 Log ₁₀	≥2.25 Log ₁₀
Percent Reduction		≥99.44%	≥99.44%

Key: + = Virus recovered; 0 = Virus not recovered and/or no cytotoxicity observed;
T = Cytotoxicity observed;

Lendlease, Singapore

In 2020, Lendlease learned about the potential benefits of installing AtmosAir systems, and committed to installing in 4 of their Singapore Malls.

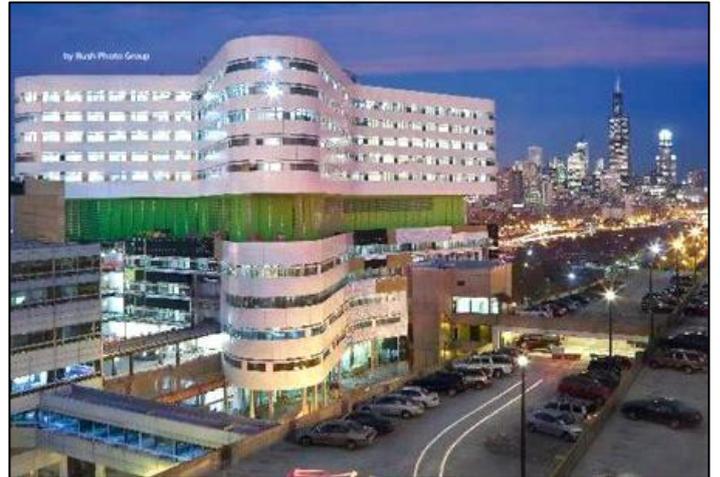
AtmosAir's bi-polar ionisation air purification systems were installed to serve in all the public areas in 313@Somerset, JEM Shopping Centre, Paya Lebar Quarter (PLQ) Mall and the Parkway Parade Shopping Mall.

Lendlease has been extremely pleased with the results, and now are working closely with AtmosAir to market the success to the general public to encourage foot traffic to return to pre-pandemic levels.

Marketing efforts include social media postings, custom decals placed at entrances to the malls, and real time IAQ display widgets to share the air quality on their websites, and LCD displays within the malls themselves.



Rush University Medical Center, Chicago



In 2019, the Rush University Medical Center was ranked #1 out of 93 major academic medical centers in the United States for delivering the highest quality of care.

After installing AtmosAir Bi-polar ionization, the bacterial level was tested and had dropped to “ND” or Not Detectable.

Here are the actual bacteria sampling results from the Rush University Medical Center in Chicago Illinois.

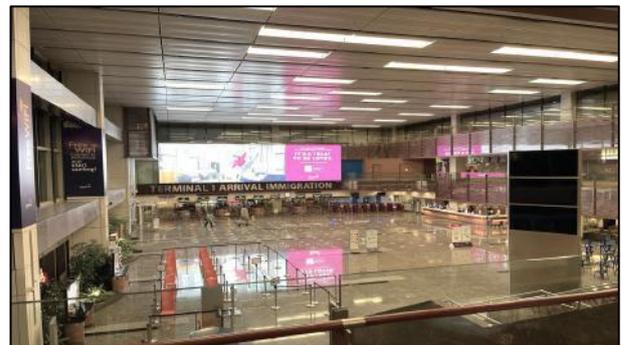
Bacteria Type	Pre AtmosAir AtmosAir CFU/M3	Post AtmosAir AtmosAir	% Difference
Bacillus Flexus	14	ND	-100%
Bacillus Marisflavi	7	ND	-100%
Kocuria Rosea	28	ND	-100%
Micrococcus Luteus	49	ND	-100%
Staphylococcus Lugdunensis	140	ND	-100%
Total	238	ND	-100%

Changi Airport, Singapore

Consistently rated as one of the world's top 2 airports, CAG Group was naturally concerned about the potential transmission of SARS-CoV-2 Coronavirus, and its variants as well as indoor air quality. Wanting to gradually open up to renewed air travel, they were most concerned about protecting their incoming passengers and mitigating the potential for the Covid-19 viral transmission.

On 29 May 2021, we installed 5 of our Model SG-508F Bi-polar Ionisation units into the ducts serving the huge Terminal 1 Arrival Immigration Hall. They were turned off on 2 June for a baseline IAQ & Surface Swab ATP test that was taken at 12 locations. They were then turned back on June 3rd.

On 4 June just 22 hours later, a second IAQ & Swab test was done. The results showed a very significant decrease in surface bacteria with the AtmosAir system. There was also a substantial reduction in PM2.5 particles, even though the outdoor PM2.5 count was much higher than on 2 June.



Test Number	Sample Site	Surface Swab Test		% Change
		Before AtmosAir	After AtmosAir	
		2-Jun-21	4 June -21	
1	RCMS Counter	60	<10	92% ↓
2	Staircase Handrail	30	<10	83% ↓
3	Down Escalator Handrail	100	<10	95% ↓
4	Lift Button	50	10	80% ↓
5	Swab Preparation Table	10	10	0%
6	Chair	20	<10	75% ↓
7	Disembarkation Form Table	30	20	33% ↓
8	Immigration Duty Officer's Counter	70	<10	93% ↓
9	Counter 21	50	<10	80% ↓
10	Counter 5 - Thumb Print Machine	80	<10	94% ↓
11	Counter 10 Shield	20	<10	75% ↓
12	011-38E Door Handle	60	20	67% ↓

CASE STUDY: EMPIRE STATE REALTY TRUST



The Empire State Realty Trust, owners of the Empire State Building in New York and 1.5 million Ft² of commercial space in New York City have installed AtmosAir throughout 7 of their buildings and the entire Empire State Building, including the Observation Deck, Offices, Retail outlets and Restaurants.

The Empire State Realty Trust (ESRT) installed AtmosAir's Bi-Polar Ionisation systems to continuously disinfect the indoor air and to protect tourists, employees and tenant's from Covid-19, germs, bacteria, dust and pollutant particles (PM10, PM2.5, PM0.3), and VOC's.

ESRT also wanted lower overall energy costs to help achieve ENERGY STAR® certification, which they achieved with AtmosAir's technology.

Mr. TONY MALKIN, CEO, Empire State Realty Trust, CNBC June 2020:

“We have utilized AtmosAir in our offices. We were an early adopter. We have rolled AtmosAir out throughout a number of buildings including the Empire State Building and AtmosAir is a part of our Indoor Air Quality specifications.”

ENERGY SAVINGS

Staples Center Full Stadium Install

\$220,000

ENERGY SAVINGS of 21%

90%

REDUCTION IN VOCs

STAPLES CENTER

STAPLES CENTER

U.S. Bank Stadium

Home of the
Minnesota Vikings

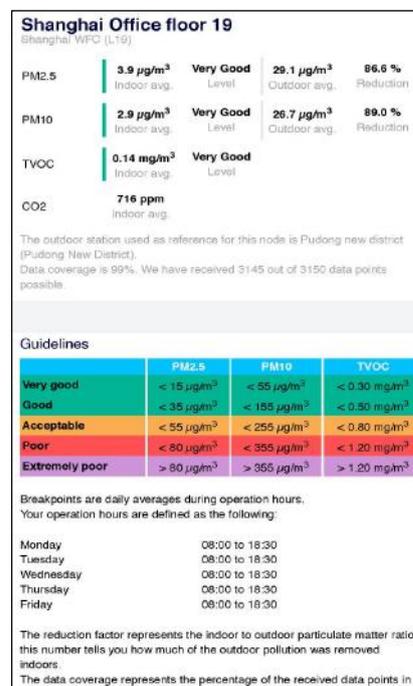
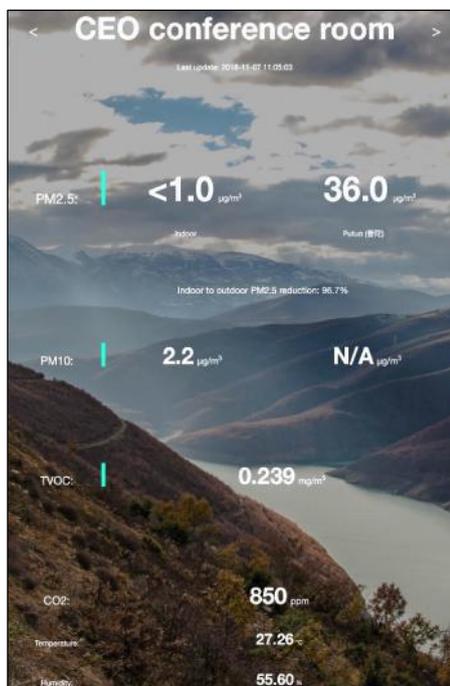
AtmosAir installed in every handler throughout LEED Platinum stadium. AtmosAware air quality sensors deployed throughout building.



AtmosAware WiFi Enabled IAQ Sensors



AtmosAware Sensors



Customized Data Displays

The AtmosAware System makes it simple to monitor your indoor air IAQ in real time on your mobile phone, tablet or laptop. It is WiFi enabled and backed up by cloud storage.

The AtmosAware System includes sensors, a web platform (subscription based) and a mobile app that enables you to check CO₂, PM2.5, PM10, Total Volatile Organic Compounds (TVOC Levels), Temperature and Humidity on your mobile device of choice.

Data can be analyzed on a daily, weekly or monthly basis and also view historical levels for comparison making report generation simple.



Breathe crisp, clean, and disinfected
“Mountain-Fresh” Indoor air again

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