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## CLEANING THE AIR TO PROTECT OCCUPANTS IN THE WORKING ENVIRONMENT

# BIPOLAR IONIZATION

### Disinfecting the indoor air in office space and other working environments

If you're trying to figure out what safety precautions to take in your office right now, you're not alone. Due to coronavirus, many offices have closed for weeks or months, sending employees home to work by Zoom and Slack. Some are reopening, while others that remained open instituted social distancing policies or installed plastic dividers between cubicles, but these measures aren't a match for all airborne pathogens. As an office manager, you want your work space to be clean, sanitized, and safe for your employees and guests.

The Varionix system employs bipolar ionization to cleanse and purify indoor air, destroying pathogens like coronaviruses. These positive and negative ions attach to pathogens like viruses and bacteria, demolishing the pathogen's surface. When this happens, a virus like SARS-CoV-2 (COVID-19) can no longer reproduce, or infect a person, even when inhaled. Viruses can't survive on commonly-touched surfaces, like desks and doorknobs, and bacteria can't survive or form colonies there. While the bipolar ions take care of germs, they also break down bad smells, and reduce your heating and cooling costs by recycling purified indoor air.

Compare this system to other measures companies have taken to outsmart COVID-19, such as replacing all doors with automatic ones, spraying employees with disinfectant mist on their way in or out of the office, prohibiting personal items on desks, and renovating bathrooms and breakrooms to be touchless. While expensive, none of these measures address germs in droplets that may stay in the air for hours. Yet this is a common way for coronavirus and other pathogens to spread.

## CORONAVIRUS CONCERNS

Although health experts are still trying to understand all possible ways for COVID-19 to propagate, it's believed to spread mostly from person-to-person, between people who are in close contact/proximity with one another (within about 6 feet), or via respiratory droplets produced when an infected person coughs or sneezes. (CDC) You probably put your desks 6 feet apart, but coronavirus may also spread through aerosols, or particles that can linger in the air for several hours. Typical air handling systems are not designed to eliminate all these particles, and can carry them from room to room. Even if you mandate masks in the office, you can't be sure people won't take them off when alone in their offices or cubicles, so these virus particles can easily get spread through the whole building.

A person can also get COVID-19 by touching a surface or object that has come into contact with the virus, then touching their own mouth, nose, or possibly their eyes, although this is not thought to be the main way this virus spreads. (CDC) Frequent cleaning and disinfecting can help reduce the spread, but no office has enough staff to clean every surface every time someone touches it.

Now, imagine such an infectious virus inside a building like your office, perhaps because infected respiratory droplets entered the air and traveled inside the HVAC system ducts, as a result of sneezing, coughing, or even touching surfaces within a structure. When these infected droplets are deposited on various surfaces, like those desks, everyone is susceptible to the virus. If the pathogen is also floating through the air, there is another source of infection.

How can you avoid or alleviate the contamination of your building? Advanced air purification solutions are vital. Varionix systems from Airionex, when installed in the existing HVAC systems of buildings or as a standalone unit, actively and efficiently eliminate microbes and viruses from the passing air. In this way, they remove the risk of HVAC systems contaminating entire buildings by delivering and depositing infected particles. The continuous application of bipolar ions emitted to ambient air is the most effective air purifying technology for decontaminating indoor air.

Because the Varionix system's bipolar ions flow out into the circulating air, they proactively attach to airborne germs like coronavirus and destroy them. You don't have to hope the germs will make their way back to an air filter and be trapped there. This keeps circulating air safe and cleaner.



## BENEFITS OF BIPOLAR IONIZATION

- ✓ Pathogens destroyed and removed. Bipolar ions break the cell membrane surface of bacteria and viruses, and eliminate airborne contaminants.
- ✓ Allergens reduced. Bipolar ions bond with contaminants such as mold and dust particles, causing them to gain mass and drop to the floor, or return to the filter. This eliminates them from the air we breathe.
- ✓ Reduction of other common irritants. Bipolar ions break down toxic gases and compounds from dangerous chemicals such as cleaning products, pesticides, paints, solvents, mold, mildew, and more.
- ✓ A fresh, clean building. Bipolar ions break down odors at their source and eliminate them — no masking or diluting!
- ✓ Improved energy — and financial — conservation. Recycling conditioned, purified air reduces the need for cooling or warming the ambient air, saving energy costs. Bipolar ionization drastically reduces the amount of incoming air needed for freshness, so less money is spent heating or cooling outdoor air. In areas where there is a strong need for heating and cooling, energy expenditures are typically reduced by about 50 percent.
- ✓ Environmentally friendly. The Varionix Bipolar Ionization System is a safe, natural, and environmentally friendly process. Our patented technology uses no chemicals, heavy metals, or mercury, and produces no harmful by-products.

## MONITOR YOUR PROGRESS

What if your employees still have concerns about their air quality? You can show them just how safe it is. Airionix's new collaboration with AirAnswers' air sampling technology will provide on-location validation of air quality, enabling peace of mind for those utilizing the spaces. These sampling devices monitor the air for viruses, mold, and other allergens so you can ensure your building's air is safe and clean. Only Airionex can provide this unique validated solution for disinfecting the air from Covid-19 and other contaminants.

## ADDITIONAL BENEFITS

This same Varionix system that protects the air from viruses, bacteria, and odors also destroys airborne allergens like dust and mold, and reduces energy costs for heating and cooling by drastically lowering the amount of outdoor air needed. On average, buildings that use the Varionix system see a 50% reduction in HVAC, heating, and cooling costs, while achieving the environmental benefits of lowering energy usage. This is a great way to save money while improving the air quality in your office.

IN THE PAST, IMPROVING INDOOR AIR QUALITY WAS OFTEN THOUGHT AS A LUXURY, NOW IT NEEDS TO BE CONSIDERED AS ESSENTIAL.