

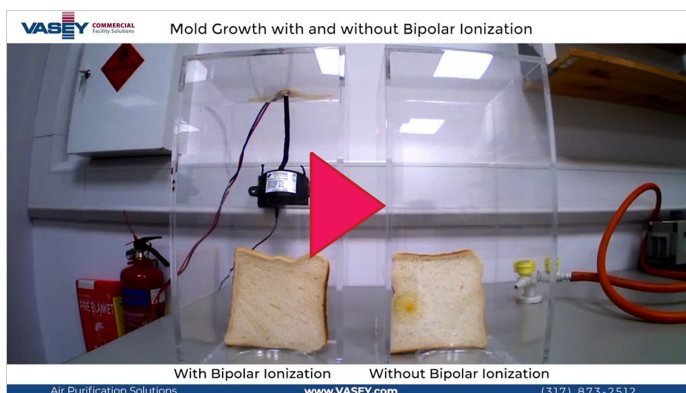
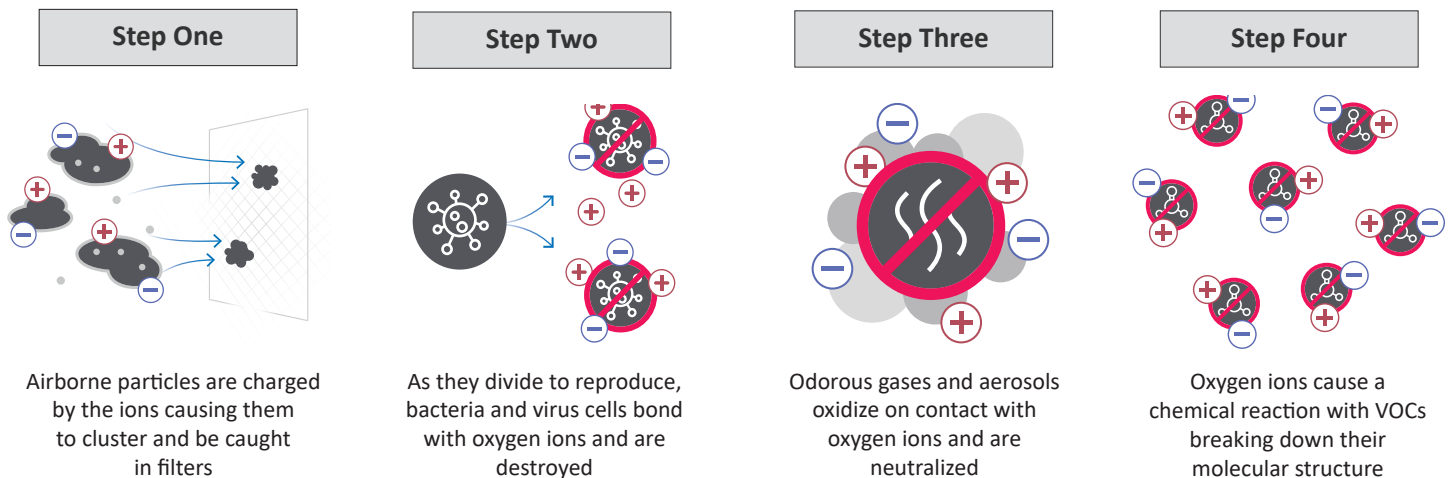
## IMPROVE AIR QUALITY - MAKE YOUR WORK ENVIRONMENT SAFE

### Protect Your Team Members and Your Customers

Given these unprecedented times, you can act now by investing in a healthier work environment. Protect your customers. Protect your team members. Improve and increase your facility's air quality. Reduce or even eliminate airborne particles such as bacteria, virus cells, mold, allergens, odors, and volatile organic compounds (VOCs) by installing a Bipolar Ionization (BI) or Ultraviolet Light Germicidal Irradiation (UVGI) system within your HVAC system.

### WHAT IS BIPOLAR IONIZATION (BI) AND HOW DOES IT WORK?

Much like sunlight does in the atmosphere, Bipolar Ionization technology produces a natural bio-climate rich in positive and negative ions. The negative ions contain an extra electron while the positive ions are missing an electron resulting in an unstable condition. In an effort to re-stabilize, these bipolar ions seek out atoms and molecules in the air to trade electrons with, effectively neutralizing particulate matter, bacteria and virus cells, odorous gases and aerosols, and VOCs.



Watch Bipolar Ionization prevent mold growth over six days in a controlled laboratory experiment

### Benefits of Bipolar Ionization

- Energy Savings: Up to 30%
- Treats Exhaust Air: Yes
- Pressure Drop: Minor
- Capital Costs: Low
- Particle Size: Small
- Operation & Maintenance Costs: Low
- Treats Air in Room: Yes
- Energy Costs: Low
- Treats Make-up Air: Yes
- Disposal Costs: None
- Treats Supply Air: Yes
- Success Rates: 99%
- Treats Return Air: Yes

**IMPROVE AIR QUALITY - MAKE YOUR WORK ENVIRONMENT SAFE**  
**Protect Your Team Members and Your Customers (continued)**

**WHAT IS ULTRAVIOLET GERMICIDAL IRRADIATION (UVGI)  
AND HOW DOES IT WORK?**

Spreading out as it travels (also called radiation), Ultraviolet (UV) energy is a portion of the electromagnetic spectrum (a term used to describe the entire range of light in existence, from radio waves to gamma rays).

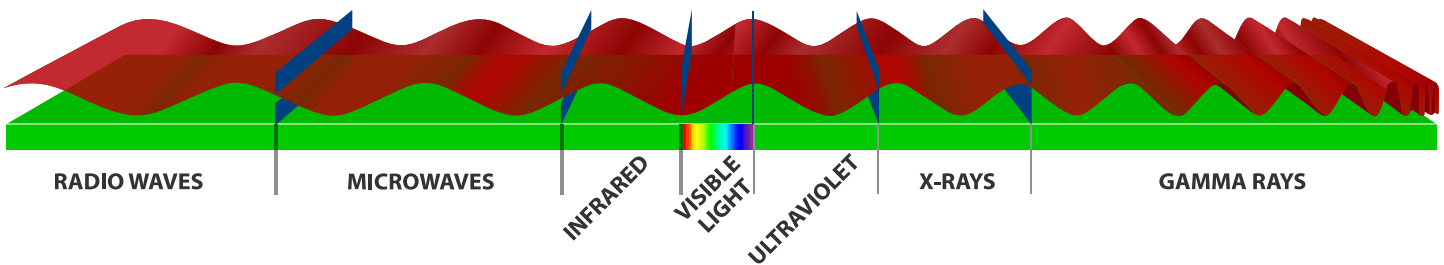
UV light is invisible to the human eye.

The UV is readily absorbed by the DNA (a self-replicating material which is present in nearly all living organisms as the main constituent of chromosomes, and it is the carrier of genetic information) and RNA (which acts as a messenger carrying instructions from DNA for controlling the synthesis of proteins; although in some viruses RNA rather than DNA carries the genetic information of microorganisms).

UVGI can be used to disinfect air, liquids, and other surfaces.

UVGI technology works well in HVAC applications as the air is typically blown across the lamp's surface.

**ELECTROMAGNETIC SPECTRUM**



While the various types of UVGI sources have their advantages and disadvantages across various applications, there is no one best source for every application. Much like a craftsman's toolbox, there are times when a hammer and nails are the best possible tool, but a hammer and nails aren't a great solution if the goal is to cut a board to a specific length.

Contact VASEY today  
to determine which  
system is right for  
your facility!  
**(317) 873-2512**

IMPORTANT: It's crucial to evaluate your existing HVAC system to custom design the appropriate air purification solution to provide optimum system performance.

**Benefits of UV**

**Fights Viruses, VOCs, Molds, Bacteria, Smoke & Treats Water**

- Pressure Drop: Minor
- Particle Size: N/A
- Treats Air in Room: Yes
- Treats Make-up Air: Yes
- Treats Supply Air: Yes
- Treats Return Air: Yes
- Capital Costs: Low
- Energy Costs: Low
- Disposal Costs: Marginal
- Operation & Maintenance Costs: Low