

How UV Light Works

UV-C light produced by the Fresh-Aire UV® System penetrates the cell walls of micro-organisms causing cellular damage, which kills them by preventing them from reproducing.



In scientific studies UV light has been proven to kill 90% of microbial contaminants after 10 minutes of exposure and 99% after 1 hour.



WHY UV LIGHT?

Kill Germs With Light

For over a century scientists have known that certain frequencies of light have a devastating effect on microbial life. We now know that exposure to ultraviolet light in the range of 254 NM (UV-C band) disrupts the DNA of micro-organisms thus preventing them from reproducing, thereby effectively killing them.

UV Light - A Well Established Disinfection Technology

UV light disinfection is now widely used in hospitals and laboratories to sanitize instruments and work surfaces and to prevent the spread of potentially lethal airborne infectious diseases. The technology is used by the food industry to sterilize food before packaging and water treatment systems large and small now incorporate UV light as a chemical-free means of purification.

A Cleaner Air System

Installation of a germicidal UV light inside the air system inhibits the growth of mold which saves energy by allowing the system to operate more efficiently. A cleaner system also requires less maintenance.

Germs in the Air You Breathe

Most people don't realize that indoor air is often far more polluted than outdoor air. Contaminants can include viruses, bacteria, mold, mildew, and allergens. Some are only annoying, others can make you sick. Because air passes repeatedly through your HVAC system (in fact many microbes like the cool dark damp interior of the system) this is the ideal place for germs to multiply and spread throughout the house.

A Whole-House UV Air Purifier - The Best Defense

Because it works inside your central air system a whole-house UV air purifier is able to intercept airborne pathogens and destroy them as they pass by. As air cycles through the system it passes by the UV light many times exposing and re-exposing airborne microbes to it's sterilizing effect. this has proven to be a safe, economical, chemical-free way to significantly reduce airborne contaminants indoors.



UV-C Light The "germicidal range" of UV light is approximately 200 – 300 nm, with a peak germicidal effectiveness at 254 nm

Ultraviolet Light UVC UVB UVA				Visible Light			Infrared (heat)
180r	nm	280nm	320nm	400nm	- Wavelength -		700nm

Brighten Your Bottom Line

Choose the Best

Triatomic offers the best in UV technology for all commercial air handler applications. With our unique remote mountable water-resistant UV lamps, we have detached the lamps from the power supply to allow for more installation flexibility and longer lamp life.

Simplified Maintenance

• When UV-C lights are properly installed they can eliminate the need for coil, drain pan and plenum cleaning program.

• Maintenance people are no longer exposed to disinfectants and other cleaning chemicals required for these tasks.

• Use of UV-C lights can result in a 99 percent reduction of the concentration of germs on irradiated surfaces within the ventilation systems.







Coil with mold



Coil after UV light application

Advanced Power Supply

Our 120-277 VAC power supply technologies utilize a high frequency electronic ballast design for stable lamp operation and increased lamp life. The power supply is completely water-resistant and can be mounted directly within the air handler for tight installations.



Water-Resistant Lamps

Our UV lamps are truly the only water-resistant lamps on the market with water-resistant connectors for mounting in "wet" locations such as at the coil and drain pan. Lamps are based on our TUV-200 series, which incorporate a shielded design that provides longer lamp life in cold areas.

Installation Flexibility

We designed installation flexibility into our commercial lamp mounting options. Our Adjustable Rack UV Lamp Modules allow for single lamp adjustments from 36" to 64" to fit almost any coil width and can be coupled together, up to 4 lamps wide to 144". The Panel Mount option allows for the UV lamps to be mounted from a side access panel for tight air handler configurations where access to the coil may be limited.





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