

#### **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?

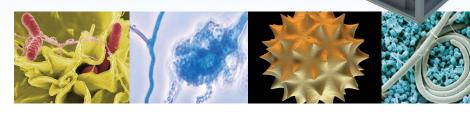
For over a century scientists have known that certain frequencies of light have a devastating effect on microbial life. We now know that exposure to ultraviolet light in the range of 254 NM (UV-C band) disrupts the DNA of micro-organisms thus preventing them from reproducing, thereby effectively killing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



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)
180nm	280nm	320nm	400nm	- Wavelength -	700nm





# **Brighten Your Bottom Line**

Triatomic offers the best in UV technology for all commercial air handler applications. With our unique remote mountable waterresistant 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.

# **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 waterresistant 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.



Coil with mold



Coil after UV light application









SALES@FRESHAIREUV.COM