# SANUVOX

# QUESTIONS & ANSWERS (Residential)

#### WHAT IS THE DIFFERENCE BETWEEN A SANUVOX AIR PURIFICATION SYSTEM AND AN AIR FILTER?

An air filter is designed to collect particulate from the air (i.e. dust and dirt). Airborne contaminants such as viruses, bacteria and mold as well as chemical agents and VOC's pass through even a high efficiency filter like sand passes through a tennis racket. Sanuvox UV Air Purification Systems are designed to destroy the DNA structure of the micro-organisms through DNA sterilization as well as change the molecular structure of the contaminant through Photo-Oxidation destroying both biological and chemical contaminants including odors.

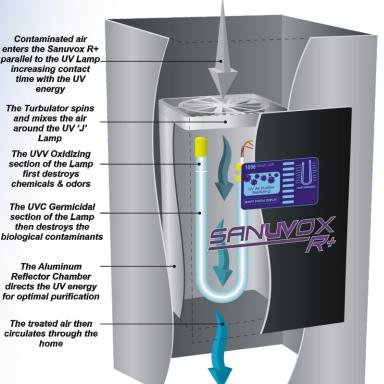
## HOW ARE SANUVOX IN-DUCT UV AIR PURIFICATION SYSTEMS DIFFERENT THAN CONVENTIONAL "STICK-LIGHT" UV PURIFIERS?

One, two, or three lamp "Stick-Light" purifiers are excellent Object Purifiers, but do little for treating the moving air in the ductwork. Sanuvox UV Air Purification Systems are specially designed to treat the air, destroying bacteria, viruses, mold, chemicals and odors. "Stick-Light" Purifiers will keep a stationary evaporator coil clean from biological contaminants but do little for the air quality. The proprietary process employed by Sanuvox UV Air Treatment Systems is designed to treat the moving air in the ventilation system. There are only thousandths of a second to deliver the sufficient UV dosage needed to destroy the bio-chemical contaminants in the airstream. The Sanuvox Process can effectively and efficiently deliver the necessary UV dosage to deactivate and/or destroy the contaminant.

"Stick Light" purifiers are excellent Object Purifiers because the object is not moving; the UV Light can shine on the object indefinitely, 24 hours a day, 7 days a week. An example of Object Purification is treating the a/c coil.

## IF THE ALUMINUM REFLECTOR TUBE IS 6 INCHES SQUARE, HOW CAN IT TREAT THE AIR IN MY DUCT? WHAT ABOUT THE AIR THAT IS NOT PASSING THROUGH THE ALUMINUM **REFLECTOR TUBE?**

A common misconception is that a UV Lamp installed in a duct will treat ALL the air passing by it. In fact, at just 2 inches from the surface of the glass of the Lamp, the UV efficiency drops more than 80%, and the decline is exponential. This is true for all types of glass and lamps: this is a fundamental principal of UVC light.



Ventilation Duct



Sanuvox R+ In-Duct **UV Air Purification System** 



When an Object Purifier (Stick-Light) is installed PERPENDICULAR to the airstream, the air spends very

little contact time with the UV Energy. When a UV Air Purification System (Sanuvox R+) is installed, the Lamp is mounted PARALLEL to the airstream. By having the Lamp installed PARALLEL in the ductwork, it allows for the contaminants in the airstream to spend 2.400% MORE CONTACT TIME with the UV Energy. With more contact time, more UV is delivered to the contaminants in the air, resulting in a much higher kill.

Sanuvox UV Air Purification Systems use an Aluminum Reflector Tube

to direct and concentrate the UV Energy without losing it in the duct. The UV system is designed to be on when the ventilation fan is on. As the air CONTINUALLY CIRCULATES through the ventilation system, the Sanuvox system will continually bring the level of contamination down. With every pass, more and more contaminants in the air are



# (click here)

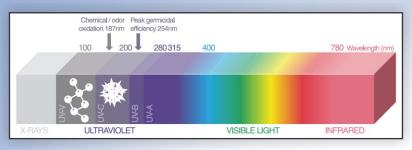
destroyed. In a typical application, in about 2 hours, the Sanuvox Purifier will on average have treated in excess of 90% of the contaminants in the air. If the Aluminum Reflector Tube was not present on the Sanuvox purifier, then the entire duct would be "lit-up", but little germicidal action would take place. The Aluminum Reflector Tube is needed to direct and concentrate the UVC energy.

energy

Lamp

home

#### HOW DOES ULTRAVIOLET LIGHT DESTROY BIOLOGICAL AND CHEMICAL CONTAMINANTS?



Ultraviolet light has four principal wavelengths: UV-A, UV-B, UV-C and UV-V. Sanuvox uses a patented "J" Lamp which produces UV-C and UV-V light. UV-C is short-wave energy. This wavelength's primary uses are for the destruction of viruses, bacteria and other microorganisms that pass through the Aluminum Chamber. The Centers for Disease Control recommends this method for destroying viruses such as tuberculosis. UV-V is primarily used for oxidization; this is the portion of the Lamp that will destroy chemicals and VOC's in the air. Both UV wavelengths work together to destroy the contaminant; UV-C penetrates the cell's membrane destroying the cell's DNA and UV-V oxidizes the chemicals and odors.

#### IS SANUVOX EFFECTIVE IN TREATING MOLD?

Sanuvox has both Air Purifiers and Object Purifiers that will destroy mold as well as hundreds of other microbial contaminants.

# IS THE SANUVOX UV SYSTEM SAFE?



Sanuvox UV Systems are perfectly safe and are \*CSA C/US certified and \*CE approved. Follow all installation and user instructions. \*Visit the appropriate Sanuvox product page to see what certification(s) they carry.

#### HOW MUCH ELECTRICITY DOES A SANUVOX UV SYSTEM CONSUME?

Electrical consumption varies according to residential models. Purifiers range from 17 watts to 85 watts.

#### SHOULD I USE AN AIR FILTER WITH MY SANUVOX?

A filter is not a purifier and a purifier is not a filter. By using a good quality filter with the UV Air Purification System, particulate, microorganisms, chemicals and odors are all addressed.

#### WHAT ARE THE APPLICATIONS AND USES FOR SANUVOX UV AIR PURIFICATION SYSTEM?

Your Sanuvox Air Purifier will destroy biological, chemical contaminants and odors such as bacteria, viruses, mold, mildew, smoke, formaldehyde, cleaning solvents, etc. Sanuvox UV Systems are used in thousands of homes, doctors and dentists offices, hospitals, veterinary clinics, office buildings, government facilities, military installations, railway stations, health clubs, day care centers, laboratories, class rooms, old age homes, hotels, smoking rooms, bars and restaurants, mausoleums, funeral parlors, morgues and museums.

# DO SANUVOX UV AIR PURIFICATION SYSTEMS PRODUCE OZONE?

Select Sanuvox products may produce residual ozone as a by-product of the UV-V wavelength (.0035 ppm.) The High-Intensity UV Lamp used is approx 95% UV-C (germicidal non-ozone producing) and 5% UV-V (oxidizing producing residual ozone). The UV-C wavelength that makes up the vast majority of the UV Lamp becomes a catalyst to reduce the residual ozone. All Sanuvox UV Lamps are also available in UV-C only.

## IS A SANUVOX PURIFIER DIFFICULT TO INSTALL?

There are several Sanuvox models, from portable units, which only have to be plugged in to in-duct units which require installation. We recommend installation to be done by a qualified HVAC Technician.

#### DOES A SANUVOX HAVE TO RUN 24 HOURS A DAY?

In-Duct models are designed to run 24 hours a day, that is not to say that they will. In-duct models have either a sensor or are wired to the home's ventilation system, which means the purifier will only run when the fan is on. The portable purifier can be used 24/7 or when the needed.

# WHAT MODELS ARE AVAILABLE FROM SANUVOX?

Sanuvox offers a full line of stand-alone and in-duct systems for residential, commercial / institutional, medical and military applications. Click the appropriate link for more information.

#### WHAT MAINTENANCE IS REQUIRED?

Besides replacing of the UV Lamp (after 3 years), no other maintenance is required for a Sanuvox UV Air Purification System. Sanuvox Saber units require a UV Lamp replacement once a year and periodic cleaning of the Lamp.

#### WHAT IS MY WARRANTY?

Sanuvox residential air purifiers are warranted for 3 years on parts including the UV Lamp. The Sanuvox R+ carries a 3 year replacement warranty. The Saber models are warranted for 1 year for both parts and UV Lamp.

> Click Here to take a short Sanuvox Indoor Air Quality survey to see how Sanuvox UV Systems can improve the air you breathe