

Delivering solutions for air quality, based on Ultra Violet Germicidal technology

Aeropure UV Systems Pvt. Ltd.

Aeropure UV Systems Pvt. Ltd. is focused on delivering solutions for air quality & power saving, based on Ultra Violet germicidal technology to the Indian and International markets, with wide ranging applications in Indoor air quality, energy conservation of air conditioning systems and for germicidal disinfection of indoor air and surfaces.

Aeropure UV systems is based in Pune, India, a sister concern of Arklife Speciality Lamps Ltd. Arklife is an internationally renowned, ISO 9001-2008 certified, Indian manufacturer and exporter of UV lamps since 1996.

Benefits of Aeropure UV Systems

For Power Savings:

The installation of UVGI devices lead to electrical energy savings to the tune of 10 to 15% by improving heat transfer efficiency of AHU cooling coil, which in turn results in reduction of chilled water requirement from the chiller.



For Air Quality:

It has been proved beyond doubt worldwide, that UVGI is an extremely effective way to improve and maintain indoor air quality, the United States General Services Administration requires that UVC be included in cooling coils of air-handling units for all federal facilities and to maintain coil cleanliness and improve air quality.



AHU Maintenance savings:

AHU coil cleaning is a major problem in HVAC maintenance. It is very difficult to do coil cleaning manually. By UV-C energy it reduces manual coil cleaning problems. It also reduces need of Chemical solvents, Pressure wash for cooling coils. So the cost is savings on HVAC Maintenance.



Green Building Benefits:

UV-C contributes in energy saving, reduces water consumption and waste water cost and chemical use in AHU.



UV-C help to extends HEPA's Life

- By installing UV-C in the AHU, the Air pass through HEPA filter will have less number of micro-organisms, as compare to normal AHU
- This helps in reduced amount of loading on HEPA filter per Air Pass
- Hence extends HEPA'S Life

What is UVGI and how does it operate ?

Ultra Violet Germicidal Irradiation (UVGI) is the use of ultraviolet (UV) energy to kill or inactivate microbes (viral, bacterial, and fungal species).



Why Aeropure ?

Aeropure is uniquely positioned to service the Customer:

- **International Quality at Competitive Prices:** 100% indigenous product.
- **Shorter Delivery times:** Manufacturing base in India enabling fast response and flexibility to configure the lamps to any given installation or design.
- **Proven Performance:** Aeropure has a growing list of satisfied customers and installations across India.
- **Highly Qualified and Competent Technical Support**
- **Turnkey solutions**
- **Sustained Customer Relationship**

Who needs UVGI ?

- Air-conditioned Offices and Residential Buildings.
- Hotels: Rooms, Restaurants, Sewage Treatment Plants and Kitchen Exhausts.
- Hospitals: Patient Rooms, Operation Theaters, Laboratories.
- Manufacturing facilities for Food and Pharmaceutical Products.
- Cold Storage and Refrigerated Spaces for storing of fruits, flowers and vegetables etc.
- Industrial Kitchens, Auditoriums, Airports, Cinema Halls and Shopping Malls.

Most of our customers realize ROI of 12 to 18 months.



The Watmizer™

UVGI System for Air Handling Units of HVAC for Power Savings and Indoor Air Quality

Watmizer is a UVGI (Ultra Violet Germicidal Irradiation) System to be installed in Air Handling Units of HVAC. The reason for installing Watmizer is to overcome the following usual problems encountered with Air conditioning and Refrigeration Systems, commissioned without any UVGI.



Increasing Electricity Consumption:

The condensation of moisture around the cooling coils creates growth of algae, mold, mildew, bacteria and viruses. Thus reducing the heat transfer efficiency and air flow of the AHU which in turn increases the power consumption.

Deteriorating Indoor Air Quality (IAQ):

The contamination of the air while passing over the coil and contamination from the work place, deteriorates the IAQ leading to **Sick Building Syndrome** and increased sickness of the inhabitants of the building. In case of cold storages, it leads to contamination and deterioration of food products.

Increased Operation & Maintenance Cost:

As a result of contamination of coils, difficulties are experienced to maintain clean and contamination free air passage.

For Retrofit and New projects:

Watmizer can be installed in existing AHU without disturbing or changing anything in the AHU.

Watmizer can also be incorporated in the design stage at the time of new projects.



Aeropure has received the **"DSK Energy Award 2011"** for outstanding contribution in energy saving.

Successful Installations:

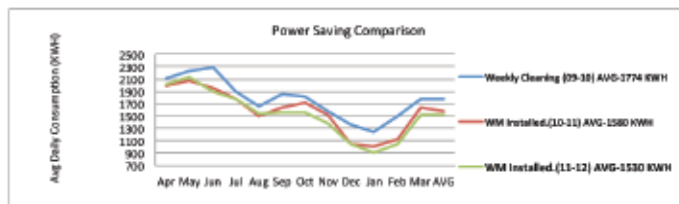
Over 1000+ Watmizer
More than 200+ Duct Zapper

Performance of The Watmizer™

(data from actual installations)

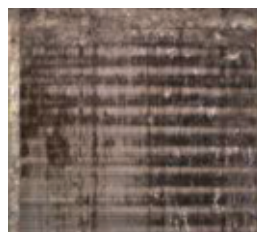
● Lower operating cost due to reduced electrical power consumption:

The Electric Power (kWh) reduced by a whopping 11% in comparable period, as depicted by the graph.



● Improved cleanliness, practically eliminating maintenance and cleaning of Cooling Coils:

The cleaning of cooling coils is practically eliminated after installation of Watmizer, thereby reducing maintenance cost and eliminating down-time of the air conditioning system.



Before WATMIZER



After WATMIZER

● Improved Indoor Air Quality:

Given below is IAQ data in a major IT company in Pune before and after Watmizer installation.

Location of air sample taken for measurement of bacteria count	Before WATMIZER bacteria Count (CFUs)	After 10 days WATMIZER bacteria Count (CFUs)	Reduction in bacteria Count
Return Air Duct (aggregate effect)	38	12	70%
Work area with full occupancy	35	6	83%
Work area with 30% occupancy	15	9	40%

Colony Forming Unit (CFU) represents the bacteria count in air.

With significant reduction in bacteria count, the Indoor Air has noticeable freshness and the spread of infection is greatly reduced.



Duct Zapper®

Air Disinfection and for Stench Removal

Aeropure UV Systems supplies **Duct Zapper**, an Ultra Violet (UV) based product designed for original fitment or retrofitting in ducts usually for the purpose of eliminating bad odours of Kitchen Exhaust, Toilet Exhausts, Sewage Treatment Plant etc. This product finds a wide application and acceptance in Hotels and Hospitality Industry as well as for Hospitals and Industrial Canteens, Public Toilets etc.

How does the DUCT ZAPPER work?

Bad odours are largely caused by Volatile Organic Compounds (VOC's). The UV lamps used in Duct Zapper are very special and capable of producing ozone by a photochemical reaction, along with normal germicidal 254nm UV light. Ozone oxidizes VOCs and converts them into traces of water and carbon dioxide, while 254nm UV kills bacteria and other microbes. Thus ozone destroys odours and 254nm UV disinfects the air.



Watmizer-Mini

A UVGI system installed in Fan Cooling Unit

Watmizer Mini is installed in the Fan Cooling Unit (FCU) near the fan or the coil. It reduces the maintenance of the coil by eliminating growth of mold and fungi on the coil leading to improvement in the IAQ. This system is ideally suited for hotels.



Aero Pro

A wall mounted unit for Air Disinfection

Aero Pro is a wall mounted unit which can be used in any room to improve IAQ. Aero Pro primarily consists of a UV lamp and a blower to circulate the air over the UV lamp to destroy bacteria, viruses, mold and fungi.



VRF-Oz Shield

In a VRF system of central AC unit, a controlled amount of ozone is generated at the entrance of fresh air intake duct. This is done by passing the intake air over a bank of ozone forming UV lamps. The ozone bearing fresh air is delivered with each of the VRF cooling coil. Thus a controlled injection of ozone improves IAQ by oxidation of VOCs and reduces the requirement of fresh air, leading to improvement in the overall energy efficiency of the AC system.

For all Inquiries regarding our products, please contact:



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