

SAFE CONTINUOUS ROOM AIR DECONTAMINATION

PROVEN TO REDUCE VIRUSES & BACTERIA SAFELY WITH THE MOST ADVANCED GERMICIDAL IRRADIATION TECHNOLOGY

Safe to use while people are present. The upper room decontamination technology from DAX Airscience uses high quality germicidal ultraviolet lamps to kill up to 99.9% of airborne bacteria and viruses, black mould and fungal growth. Used in hospitals across the world it reduces odours and respiratory allergens and airborne transmission of influenza, colds, and viruses.



Safe • Automatic • Fast • Economical

> HOW DAX UPPER ROOM UNITS ACHIEVE RESULTS

DAX airscience upper room units utilise focused UV-C light directed upward so there is no risk to personnel or room occupants and the environment. This unit allows the control of bacteria, viruses and VOCs more efficiently than ever before. All of this is achieved with low energy consumption, only 32 watts. The custom designed louvre system ensures that directed focused Germicidal UVC light is directed at contaminated air in the upper portion of the room, targeting pathogens in the air. Focused ultraviolet rays project across the upper room air. Bacteria and viruses that are carried into the ultraviolet field by convection currents or air circulation are destroyed.

The upper room unit controls harmful bacteria and viruses in the air and inhibits airborne bacteria and virus from contaminating exposed surfaces 24 hours a day, 365 days of the year.



CONTINUOUS INFECTION CONTROL

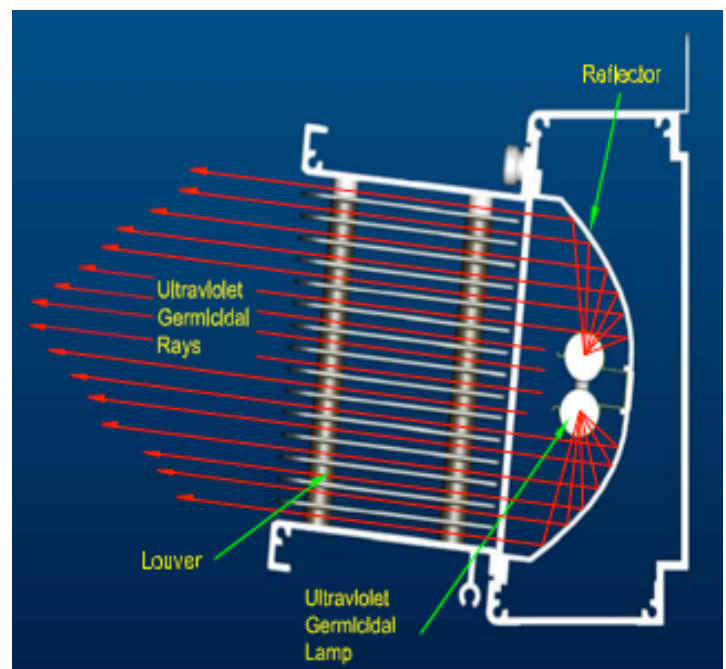
- Hospitals
- Nursing Homes
- Clinics
- Laboratories
- Maternity units
- Food processor
- Pharmaceutical manufacturing
- Prisons
- Universities
- Schools
- Offices



Germicidal Irradiation by dual UV light (Ultraviolet) kills microorganisms (bacteria, viruses and mould) by disrupting their DNA and removing their reproductive capabilities.

> PRINCIPLE OF OPERATION

The Upper Room Air Germicidal Unit design has been carefully conceived to provide germicidal ultraviolet rays to purify the upper room air of occupied spaces in order to reduce the risk of cross infection and exposures of occupants to infectious airborne microbes. The dosage as it applies to ultraviolet disinfection, is a function of time and the intensity of the ultraviolet irradiation to which the air is exposed. The exposure time, in seconds, is the total time it takes the air to move through the ultraviolet produced by the germicidal lamp. Exposure time is related to the airflow rate, the higher the airflow the lower the exposure time the lower the airflow the higher the exposure time.



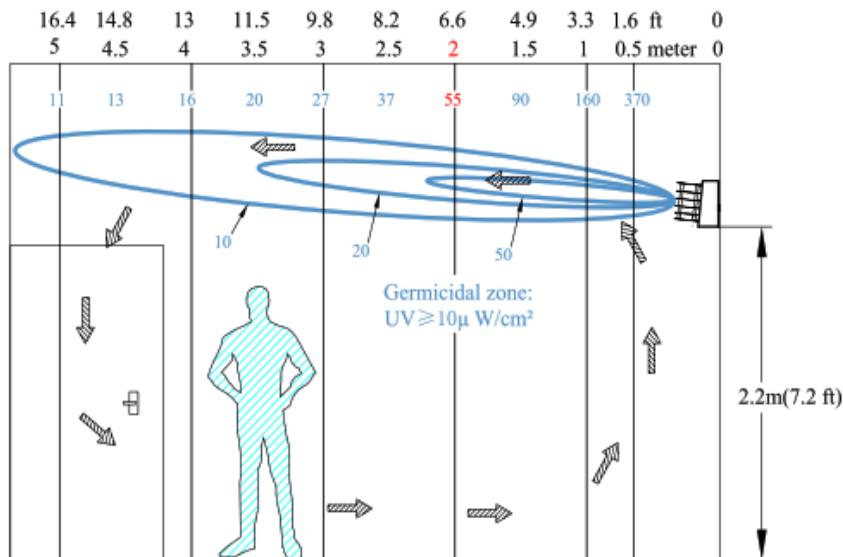
- First line of defence against infections and pathogens
- Eliminates bacteria and viruses in the air
- Lifts hygiene levels
- Reduces risk of cross-infection and absenteeism
- Removes embarrassing odours by treating the root cause
- Provides fresh clean air
- Decontaminates the room 24 / 7

ULTRAVIOLET DOSAGE

Germicidal lamps provide effective protection against microorganisms. A small cross-section is shown below. Nominal Ultraviolet dosage $\mu\text{W}/\text{cm}^2$ necessary to inactivate better than 99% of specific microorganisms.

ORGANISM	ALTERNATE NAME	TYPE	DISEASE	DOSE
Corynebacterium diphtheriae	C.diphtheriae	Bacteria	Diphtheria	6,500
Legionella pneumophila	L.pneumophila	Bacteria	Legionnaires Disease	2,700
Mycobacterium tuberculosis	M.tuberculosis	Bacteria	Tuberculosis	10,000
Pseudomonas aeruginosa	P.aeruginosa	Bacteria		3,900
Serratia Marcescens	S.Marcescens	Bacteria		6,160
Staphylococcus aureus	S.aureus	Bacteria		6,600
Staphylococcus epidermis	S.epidermis	Bacteria		5,800
Adeno Virus Type III		Virus		4,500
Coxsackie A2		Virus		6,300
Influenza		Virus	Flu	3,400

UV measurements given in microwatts per square centimetre $\mu\text{W}/\text{cm}^2$



EXAMPLE

Inactivation of airborne Influenza virus requires a UV dose of 3,400 microwatt per square centimetre. In a typical 2-meter distance from the unit in the ultraviolet irradiation zone, one minute irradiation time would be needed to inactivate the Influenza virus.

CALCULATION

UV intensity at 2 meters = 55 microwatts per square centimetre
 Time taken to inactivate the Influenza virus: $3400/55 = 61.8$ seconds

For more information or to place an order call:

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