



# UVMATIC<sup>®</sup> AirSafe Steriliser

The **UVMATIC<sup>®</sup>** AirSafe Steriliser purifies air through a multistage process. Air is drawn in and exposed to UV-C light, killing microbes, while a titanium dioxide coating triggers a reaction that destroys additional pathogens.

An activated carbon filter then absorbs odours and pollutants, and a HEPA 14 filter captures particles as small as 0.16 microns, including bacteria and viruses, ensuring purified air is released back into the environment, with a filtration efficacy of 99.995%.



# Clinically Proven Air Sterilisation for Safer Hospital Environments

Developed with a leading Danish hospital, the UVMATIC® AirSafe Steriliser uses multi-stage filtration and dual disinfection to sterilise air in clinical settings.

It combines UVC light, a titanium dioxide (TiO<sub>2</sub>)-coated filter, activated carbon, and a medical grade HEPA14 filter, removing particles and neutralising airborne pathogens with high efficiency.

## Proven at Rigshospitalet, Copenhagen:

Clinical testing showed a steady drop in airborne bacteria (CFUs) when the unit was active, with levels rising sharply when turned off—proving its effectiveness.

## Why clean air matters:

Hospital ventilation is often poor due to sealed windows or restrictive policies. HTM 03-01 recommends at least six air changes per hour in wards, rising in high-risk areas.\*

Inadequate ventilation allows viruses to spread and linger. Cleaner air reduces infection risk and protects patients and staff.\*\*

## NHS Wales efficacy testing

A study carried out by NHS Wales at Ysbyty Gwynedd, Bangor in January 2023, noted a reduction of more than 96% in 0.3µm particles over a 120 minute period.

## Convenient & Effective Air Sterilisation

- Developed & tested in cooperation with a leading Danish hospital
- Mobile & easy to transport
- Unique, multi-filtration and dual disinfection process
- Low maintenance required
- Low noise level, making the unit suitable for ICU environments
- Day & night settings available
- Proven 80% reduction in CFU's in an ICU Environment\*\*\*
- Documented reduction of surface contamination in addition to the air\*\*\*

### UVMatic® AirSafe Small:

- Three powerful UV-C lamps (254 nm)
- 0.75 m<sup>2</sup> TiO<sub>2</sub> coated filter
- 0.8 m<sup>2</sup> activated carbon filter with 500 gram activated carbon per m<sup>2</sup>
- 14,5 m<sup>2</sup> HEPA 14 filter (0,16 micron efficacy 99.995%)
- Capacity: 400 m<sup>3</sup> air/hour
- Day mode 58.9 dBA - Night mode 46.6 dBA\*\*\*\*
- 4.5 kW / 24 hour
- Dimensions: H: 84.2cms x W: 38.8cms x L: 50.8cms
- Weight: 37.5 kgs

### UVMatic® AirSafe Large:

- Four powerful UV-C lamps (254 nm)
- 1.15 m<sup>2</sup> TiO<sub>2</sub> coated filter
- 1.2 m<sup>2</sup> activated carbon filter with 500 gram activated carbon per m<sup>2</sup>
- 22,5 m<sup>2</sup> HEPA 14 filter (0,16 micron efficacy 99.995%)
- Capacity: 800 m<sup>3</sup> air/ hour
- Day mode 54.6 dBA - Night mode 44.9 dBA\*\*\*\*
- 6.5 kW / 24 hour
- Dimensions H: 96.3cms x W: 58.8cms x L: 70.8cms
- Weight: 58.2 kgs

#### References

\* Heath Technical Memorandum 03-01 Specialised ventilation for healthcare premises. Part A: The concept, design, specification, installation and acceptance testing of healthcare ventilation systems.

\*\* The Washington Post. Opinion: To Stop the Pandemic, Remove the Invisible Air Bridge. December 2021.

\*\*\* Test Report. MD Leif Percival Andersen, Specialist in Clinical Microbiology and Head of The Laboratory of Infection Control, Rigshospitalet, Copenhagen. Field Test of DDC Air Steriliser. June 2021.

\*\*\*\* Tested 1 metre from the unit. 60 dBA is normal conversation.

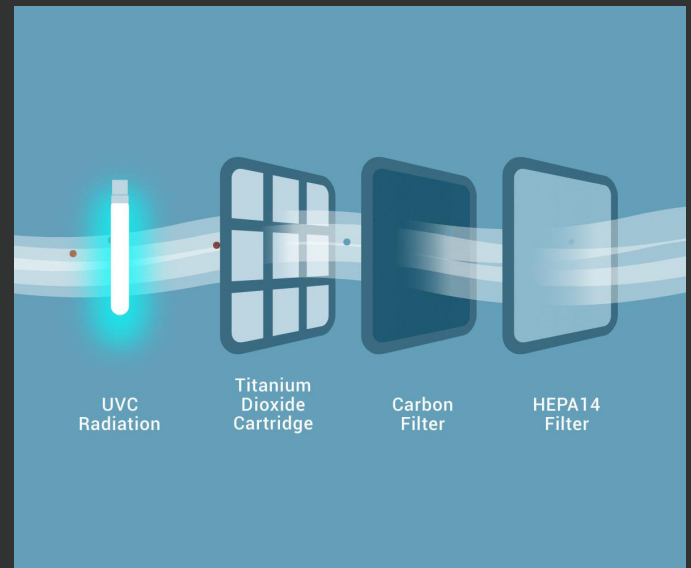
# UVMATIC® AirSafe Steriliser

Air is drawn into the cartridge from the bottom of the unit and exposed to UV-C light.

The UV-C is also radiated on to a titanium dioxide coated filter, which causes a photo catalytic reaction.

Strong oxidizing hydroxyl radicals are formed that destroy the cell walls of microorganisms present.

Air then passes through an activated carbon filter that absorbs odours and other particulate pollutants. Air is pushed through a HEPA 14 filter which captures particles as small as 0.16 microns in diameter, including bacteria and viruses. Air is evenly dispersed to provide a draught free environment.



## Unique technology designed for the healthcare environment

### Why use a UVMATIC® AirSafe Steriliser?

The UVC Air Steriliser has been tested by Copenhagen University Hospital, Rigshospitalet, who has documented a reduction in CFU's of >80% in the air after usage of the UVMATIC® AirSafe Steriliser.

### The effect of using the UVMATIC® AirSafe Steriliser?

Laboratory and clinical testing has documented a reduction in air borne & surface CFU's, along with an improvement in air quality, which led to a better environment for staff and patients.

### Where to use the UVMATIC® AirSafe Steriliser?

In all places where many people are gathered and in hospital wards where patients have a low immune system.

### The advantages and benefits of using the UVMATIC® AirSafe Steriliser?

The advantage is that you have constant sterilisation process of the air securing a safer and more pleasant environment.

### What room area does the UVMATIC® AirSafe Steriliser cover?

Room volume and number of air changes per hour are key components in calculating which model of UVMATIC AirSafe steriliser is required. Your DDC representative can assist with this.

### Is it possible to stay in the room while the UVMATIC® AirSafe Steriliser is on?

Yes, the UVC lamps are placed inside the filter cabinet and the irradiation takes place inside the unit. The sterilising process is chemical free and does not leave any by-products.

### How to use the UVMATIC® AirSafe Steriliser?

Place the UVMATIC® AirSafe Steriliser in a corner or alongside the wall, plug it in and turn it on.

### Why does the UVMATIC® AirSafe Steriliser have much more filter-volume than other products?

This is your guarantee of very high efficacy. The high volume of filter material ensures that the documented efficacy lasts for up to one year with the UVMATIC® AirSafe Steriliser running 24/7.

### What is the benefit of combining dual disinfection and filtration

The dual disinfection technology ensures that any pathogens are deactivated, which means that the air leaving the unit is safe, but also means that when the HEPA filter requires replacement, that it doesn't release active pathogens back into the environment, reinfesting air and surfaces.

# DDC



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