

FAQ – Room Disinfectant

How does UVC work?

UVGI is a disinfection method that uses short-wavelength ultraviolet light (UV-C) to kill or deactivate microorganisms like bacteria, viruses, molds, and other pathogens by destroying nucleic acids and disrupting their DNA/RNA. This leaves them unable to perform vital cellular functions and reproduction.

Disinfection is a function of UVC intensity and time. It is usually measured in microjoules per square centimeter, or equivalently as microwatt seconds per square centimeter ($\mu\text{W}\cdot\text{s}/\text{cm}^2$). Dosages for a 90% elimination of most bacteria and viruses range from 2,000 to 8,000 $\mu\text{W}\cdot\text{s}/\text{cm}^2$.

Why use a UVC Room Disinfectant?

The UVC Room Disinfectant delivers a constant and consistent UVC dose at the irradiated area. Thus, the process is not reliable on human hands and accountability.

A UVC disinfection is chemical-free and produce no bi-products wherefore using UVC is a better solution for the environment and for the staff

A UVC Disinfection is a fast method, saving staff resources and as the room can be used immediately after the disinfection process you will see a faster turn-over of the patient wards.

How to use a UVC Room Disinfectant?

Step by step instruction:

- Conduct the normal cleaning procedure
- Make the room ready for disinfection
- Move the beds, chairs, and tables
- Open the cabinet doors
- Place the main unit in the center of the room
- Place the satellites for irradiation of i.e., blind angles, toilets or entrance
- Place the caution signs in front of the door/doors
- Plug in the cable
- Push the green start/stop button
- Choose time interval and push OK
- Leave the room and close the door(s)
- Check the display if the disinfection has been proceeded correctly – shown by ✓

Where and when to use a UVC Room Disinfectant?

The UVC Room Disinfectant should be used every time there is a risk of spreading infections from one patient to the next.

The UVC Satellites can be used to cover small rooms like entrances, toilets, and bathrooms

CONTACT

The advantages and benefits of using a UVC Room Disinfector?

The UVC Room Disinfector is a chemical free efficient solution which save time and manpower compared to standard disinfection processes. It is an automatic process, and the result is not depended on human accountability.

The UVC disinfection is a fast and efficient disinfection method which is timesaving and secure a faster turn-over of patient wards

What is the effect of using a UVC Room Disinfector?

The UVC Disinfector has been tested by Copenhagen University Hospital, Rigshospitalet and this is some of the result from the testing:

Gram negative bacteria are reduced about 8 log₁₀ at 3 meters from the unit, 6 log₁₀ at 5 meters from the unit.

Gram positive bacteria are reduced around 6 log₁₀ 3 meter from the unit and 5 log₁₀ 5 meters from the unit.

What is the irradiation area of the UVC Room Disinfector?

The main unit has an irradiation area of 100 m². As the unit is equipped with a UVC lamp in the bottom it provides a total floor irradiation. The unit provides the efficient dose up till 2,20 meters in the height to kill bacteria and viruses.

What is the UVC irradiation dose?

The UVC dose describes the volume of UVC light measured in microjoules pr square centimeter.

Which microorganisms are reduced/eliminated?

UVC light is efficient against all microorganisms.

Copenhagen University Hospital, Rigshospitalet has specifically tested and documented the effect of the UVC Room Disinfector on the following microorganisms:

- Staphylococcus aureus
- Enterococcus faecalis
- Enterococcus faecium (VRE)
- Klebsiella pneumoniae
- Acinetobacter baumannii
- Stenotrophomonas maltophilia

Is there any documentation for the efficacy of the UVC Room Disinfector?

The UVC Room Disinfector has been tested by Copenhagen University Hospital, Rigshospitalet and has issued a test report. Please contact Dolphin Care or their local representative for further information.

How long time is needed to eliminate bacteria, viruses, spores etc.?

- 30 minutes exposure for non-sporing bacteria and viruses
- 90 minutes for spore-producing bacteria and mycobacterium

How do I know, that the UVC Room Disinfector has disinfected the room efficiently?

If there is no failure mentioned at the control board of the unit and if the UVC-lamps are changed on a yearly basis the UVC Room Disinfector is disinfecting as efficiently as described in the test-report from Copenhagen University Hospital, Rigshospitalet.

You can at any time test the disinfection process by taking imprints before and after and compare the results.

Some are using paper dosimetry, but the accuracy and liability is limited and therefore it is only recommendable to use this method as a screening method.

How do I prepare the room for UVC Room Disinfection?

- Conduct the normal cleaning procedure
- Make the room ready for disinfection
- Move the beds, chairs, and tables
- Open the cabinet doors
- Place the main unit in the center of the room
- Place the satellites for irradiation of i.e., blind angles, toilets or entrance
- Place the caution signs in front of the door/doors

Will the UVC irradiation damage surfaces, walls, and the remaining equipment in the room?

No, the UVC irradiation will not damage the various materials in the room.

Is it possible to stay in the room during the UVC Room Disinfection process?

No, there must not be any persons in the room as the UVC irradiation is so strong that it will affect the skin if you are exposed for a longer time.

What will happen if someone enters the room accidentally during the disinfection process?

The person might get skin irritation and irritation of the eyes.

If entrance to the room is necessary we recommend to use the UVC stop button at the warning signs out-side the door. If you wear glasses you can enter the room and stop process either by using the emergency button at the top of the unit, use the stop button on the board or switch of the power.

Would it be possible to stop the disinfection process without entering the room?

Yes, the warning sign out-side the room has an UVC Stop button.

What is the price for a UVC Room Disinfector?

Please contact your local Dolphin Care representative to get quotation.

What are the running costs for the UVC Room Disinfector?

The UVC Disinfector has a power consumption of 0,946 kWh for 30 minutes program.

On top of that you must change the UVC lamps every 12th month. Please contact Dolphin Care or their local representative for a price for new UVC lamps or a service level agreement

Is there a warranty and what does it cover?

The UVC Air Sterilizer comes with a 3-years warranty and covers the electrical parts.

How do I maintain the UVC Room Disinfector?

The UVC lamps will have to be changed once a year. The new UVC lamps should be identical with the ones which are delivered from Dolphin Care, otherwise we cannot guarantee the same disinfection effect. You can either order the UVC lamps from us or sign up for a service agreement and we will automatically change the lamps every 12th month.

How much time do I have to leave the room after the program has been started?

You have 30 seconds from you start the process until the UVC lamps start up.

Can I adjust the delay of the start of the UVC lamps?

Your Dolphin Care service partner can adjust the time

Do I need to remove plants from a room that is about to get disinfected with UVC light?

Yes, plants will not survive the strong UVC irradiation.