

**PHILIPS**

UV-C disinfection chamber

# 4-log disinfection in minutes

An excellent combination of unique design and effective surface disinfection, for professional use



# Effectiveness of UV-C on COVID-19 confirmed

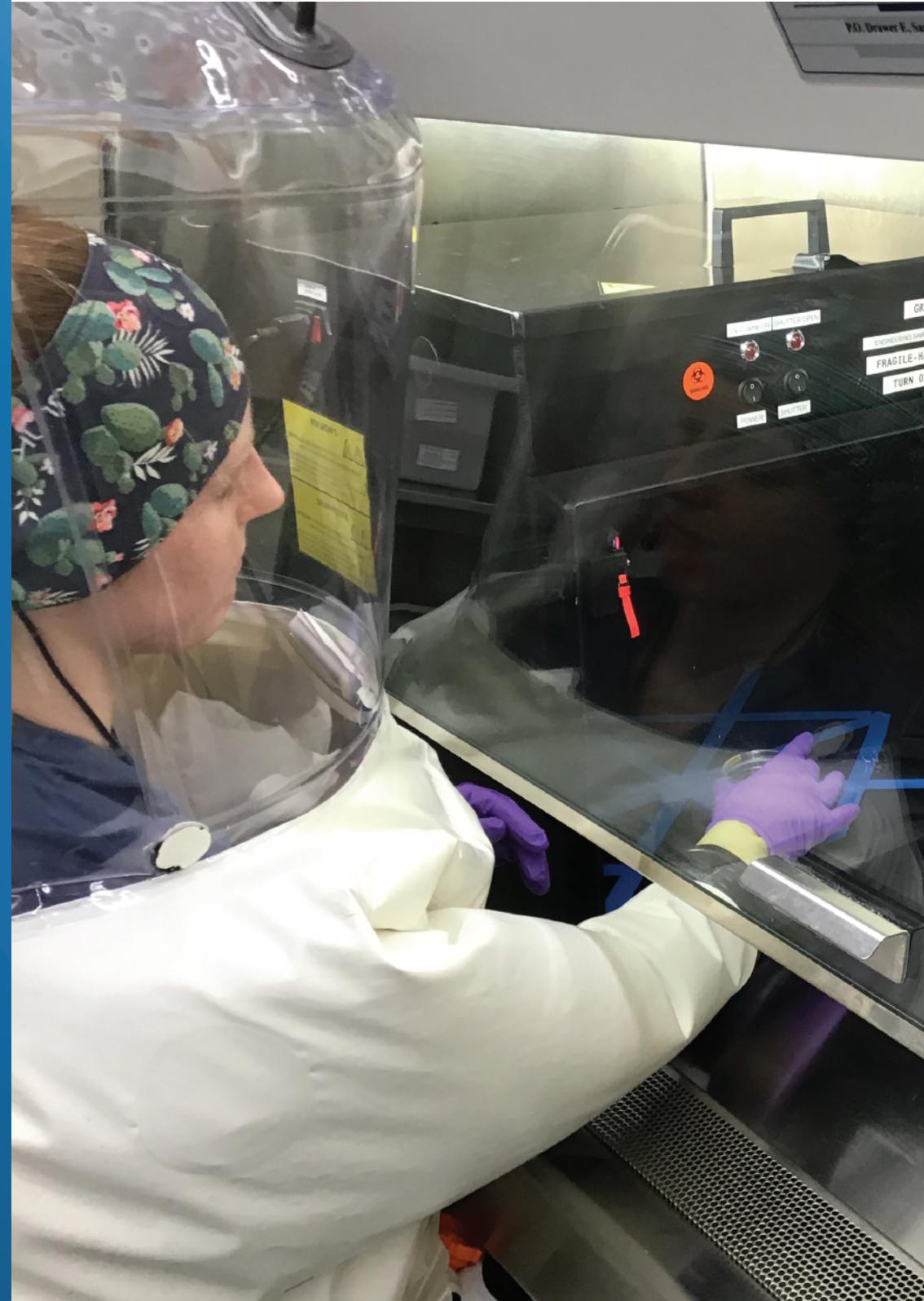
Based on the data made available to us by the National Emerging Infectious Diseases Laboratories (NEIDL)<sup>1</sup> at Boston University, which will be the subject of a forthcoming scientific publication by Boston University, in a laboratory setting<sup>2</sup>, Signify's UV-C light sources irradiating the surface of a material inoculated with SARS-CoV-2 (the virus that causes the COVID-19 disease) at a UV-C dose of 5mJ/cm<sup>2</sup> (exposure time 6 seconds) resulted in a 99% reduction of the SARS-CoV-2 virus present on that surface. The same study determined that a UV-C dose of 22mJ/cm<sup>2</sup> results in a reduction of 99.9999% of SARS-CoV-2 virus on that surface (exposure time 25 seconds).<sup>3</sup>

Signify is the leader in UV-C light sources and has been at the forefront of UV technology for more than 35 years. It has a proven track record of innovation in UV-C lighting, which is designed, manufactured and installed in line with the highest safety standards.

<sup>1</sup> The NEIDL is a state-of-the-art research facility that encompasses significant containment laboratories at Biosafety Level -2, -3, and -4.

<sup>2</sup> The experiment based upon which these test results and data were obtained was conducted by Dr. Anthony Griffiths, Associate Professor of Microbiology at Boston University School of Medicine, and Dr. Griffiths' team, at the premises of the National Emerging Infectious Diseases Laboratories at Boston University, located in Boston, Massachusetts, United States of America.

<sup>3</sup> Research variables are available upon request.



# UV-C disinfection chamber

UV-C disinfection chamber is intended to be used for disinfection surfaces of objects other than medical devices. UV-C effectively inactivates many viruses and pathogens on directly irradiated surfaces.<sup>1</sup>

The UVC disinfection chamber will be available in three variants small, medium, large.

- Small UVCC 100 with height of 510 mm (77-liters)\*\*
- Medium UVCC 200 with height of 660mm (112-liters)\*
- Large UVCC 300 with height of 1700 (323 liters)\*\*\*

The UV-C disinfection chamber design optimizes the effectiveness of Philips UV-C lamp (253.7nm) to provide 4-log (99.99%) disinfection with time guidelines and avoid over exposure to the object.

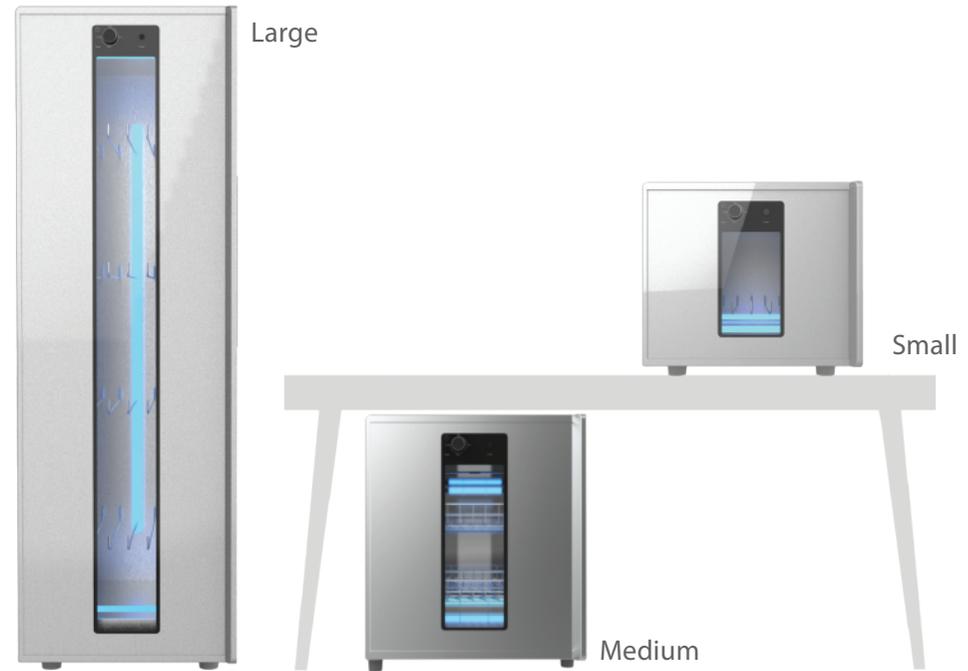
UV-C disinfection chamber is designed for versatile objects surface disinfection. This UV-C product is not approved and/or certified as a medical device.

\* Delivery from August 2020

\*\* Delivery from October 2020

\*\*\* Delivery TBD

<sup>1</sup> Fluence (UV Dose) Required to Achieve Incremental Log Inactivation of Bacteria, Protozoa, Viruses and Algae Revised, updated and expanded by Adel Haji Malayeri, Madjid Mohseni, Bill Cairns and James R. Bolton. With earlier contributions by Gabriel Chevrefils (2006) and Eric Caron (2006) With peer review by Benoit Barbeau, Harold Wright (1999) and Karl G. Linden.



## Effective

- 4-log disinfection

## Fast

- Can disinfect surface of the objects in minutes with 4-log (99.99%) disinfection

## Environment friendly

- Chemical free disinfection, no residuals on object surface.
- No collateral damage to the environment of use.
- Ozone free (Ozone is a poisonous gas; it creates irritation and especially people with respiratory problems such as asthma should not be exposed)

## Safety

- The product is fully compliant with the safety standard IEC60335-1: 2010
- \* Direct exposure of UV-C is dangerous to living beings, chamber only starts when the door is securely closed, and disinfection cycle is activated
- Auto power off when the chamber is open ensuring no UV-C exposure to user

## Robust

- Stainless-Steel chamber with sturdy trays to support heavy items up to 6Kgs
- Easy to use, one touch operation

## Features



Prefixed time selector for duration of disinfection. Easy to use, one touch operation.



Optimized window size to maximize UV-C dosage. Blue glow from glass window is a visual indicator for the disinfection cycle in progress.



Two trays for accommodating multiple objects, upper tray is removable to fit bigger objects



Lamp safety cover, to ensure safety of lamp while accessing trays

## Safety



Disinfection starts only when the door is firmly closed. In case of lamp failure, it can be easily detected through the window when lamps are working #

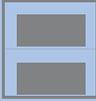
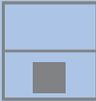


During the disinfection cycle, if the door is accidentally opened by someone the UV-C lamps will automatically turn off, to prevent UV-C exposure.

## Applications

- Pharmacies
- Offices
- Banks
- Hotel
- Schools
- Universities
- Retail
- Hypermarket, supermarkets
- Food courts
- Restaurants
- Industrial kitchens etc
- Fitness centers
- Industries
- Barber shop | Spa
- E- commerce pick up points
- Courier services

## Disinfection Time- Medium Size

Objects	Object size	Recommended disinfection time	Remark	Placement
2 Big objects	400mm*350mm*120mm	10 mins*	Minimum 50mm distance to lamp	
1 Small object	150mm*150mm*150mm	3 mins*	Minimum 50mm distance to lamp	
1 Big object	400mm*350mm*320mm	10 mins*	Minimum 50mm distance to lamp	
Multiple small objects	150mm*135mm*120mm	10 mins*	Minimum 50mm (object to objects)	

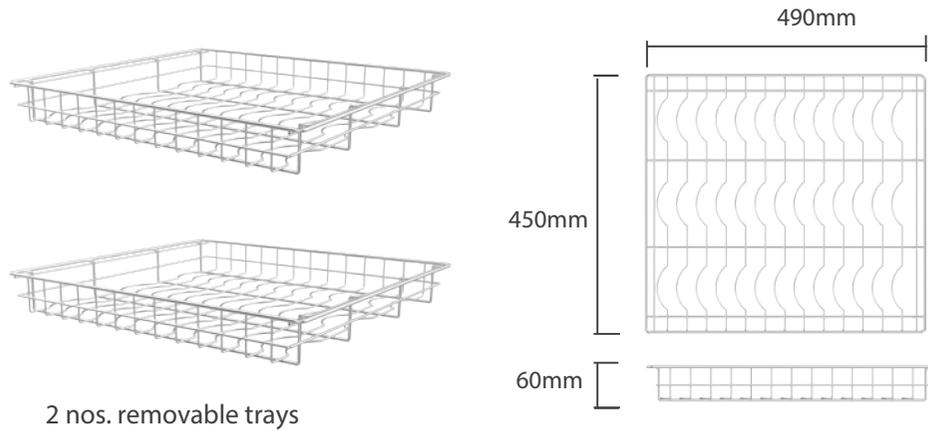
## Material Safety

Degradation can be negligible for inorganic materials such as glass, glass fibers, and metal are not affected by UV-C exposure<sup>1</sup>. For all organic material degradation refer to ASHRAE research project RP-1509 report. The device cannot be used to disinfect the surfaces of medical devices (such as medical devices in a room, surgical masks and/or surgical respirators)<sup>2</sup>; The device cannot be used for disinfection of human skin.

<sup>1</sup> Based on study from Kauffman 2011, 2012; Kauffman and Wolf 2012, 2013

## Specifications

### Tray details



### Chamber dimensions



## Technical specifications- medium -UVCC 200

S. No	Parameters	Medium -UVCC 200
1	Disinfection effect	4-log disinfection (mJ/cm <sup>2</sup> )
2	Input voltage	220-240V , 50/60 Hz
3	Total power	80W
4	UV-C lamp wavelength	253.7nm
5	Time setting	Time set up level 3 min/5 min/10min/20min
6	Ozone free	Yes
7	Safety start	Yes (power ON when door is closed)
8	Door open protection	Yes (power OFF when door is open)
9	Operating temp	+10°C to +40°C
10	Dimensions	660 x 560 x 590 (in mm)
11	Front door	Tempered Glass (Small glass window)
12	Housing material	Stainless steel/ tempered glass
13	Warranty	1 year

