



Universal Disinfection Box

UV-C DB90.1



PREVENTION IS BETTER THAN CURE

Kooptech® UV-C DB.90.1 Box - this disinfection cabin is an all-purpose solution for effective reduction of bacteria, viruses and fungi by UV-C radiation.



Kooptech[®] UV-C DB.90.1 Box

EFFECTIVE DISINFECTION REDUCTION OF BACTERIA, VIRUSES AND FUNGI

A universal solution for disinfecting everyday items

Many daily-used items may be subject to microbial contaminations. However, their source are not just aerosols exhaled through nose and mouth. Microorganisms present inside rooms can settle on surfaces of different items, causing their contamination. Since microorganisms can survive for many hours, systematic disinfection of personal items is an absolute necessity.

An effective and relatively inexpensive solution is to expose items surface to UV-C germicidal irradiation (light wavelength 254 nm). **The process of UV-C radiation significantly reduces the risk of exposure to disease-causing pathogens¹. UV-C radiation is one of the disinfection methods recommended by US CDC² (Centers for Disease Control and Prevention) in the face of the SARS-CoV-2 virus pandemic which causes the COVID-19 disease.** For years, it has been successfully used in many industries, including food, medical, and others.

**Kooptech[®] UV-C DB.90.1 Disinfection Box
is accredited by a certified biotechnology laboratory.**

1. Derraik, J.G.B.; Anderson, A.W.; Connelly, E.A.; Anderson, Y.C. 2020. Rapid evidence summary on SARS-CoV-2 survivorship and disinfection, and a reusable PPE protocol using a double-hit process, medRxiv DOI: 2020.04.02.20051409; <https://doi.org/10.1101/2020.04.02.20051409>.
2. Centers for Disease Control and Prevention, 2020: Decontamination and Reuse of Filtering Facepiece Respirators <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html>

KOOPTECH® UV-C DB90.1 Box

The typical value of UV-C irradiation inside the **UV-C DB90.1 Box**, at a distance of 100 mm away from the lamps, is 10 W/m^2 (1 mW/cm^2). With a typical treatment time of 150 seconds, **the effective dose of UV-C irradiation is then equal to 1500 J/m^2 (150 mJ/cm^2)**.

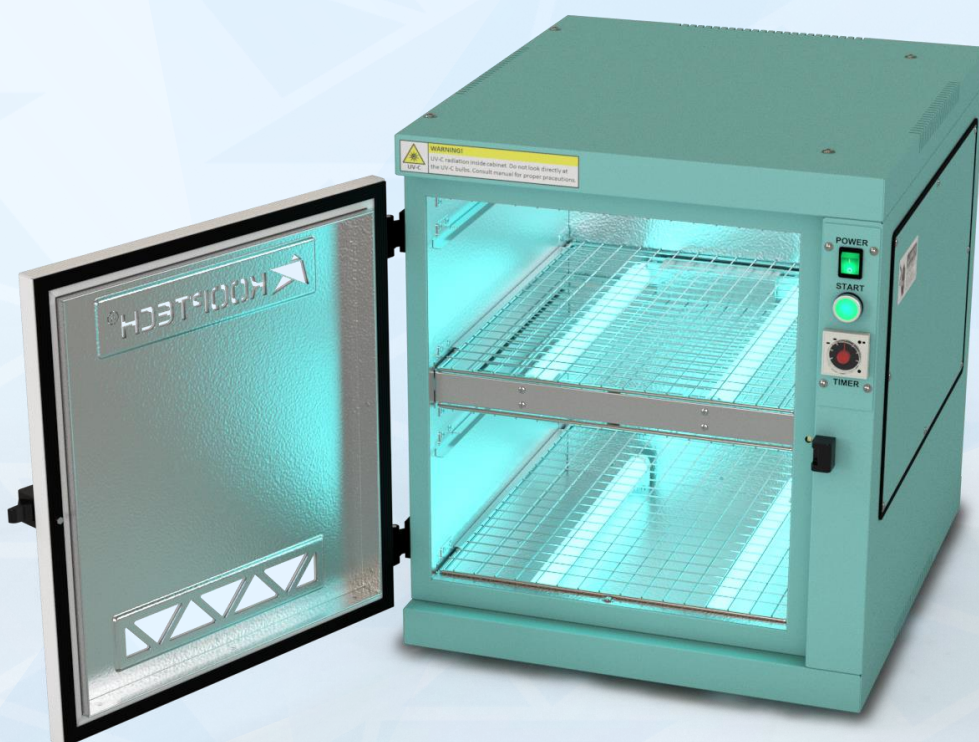
Based on data published by IUVA, the table below presents examples of bacteria, viruses and fungi, and effective doses of UV-C 254 nm irradiation required for various levels of reduction of microorganisms (highlighted are values below) the typical **150 mJ/cm^2** of the **Kooptech® UV-C DB90.1**

microbe	typical values for surface treatment				
	K [m^2/J]	dose [mJ/cm^2] for reduction by			
		90%	99%	99.9%	99.99%
bacteria (veg.)	0.14045	2	3	5	7
viruses	0.03156	7	15	22	29
bacterial spores	0.01823	13	25	38	51
fungal cells/yeast	0.00700	33	66	99	132
fungal spores	0.00789	29	58	88	117

Kooptech® UV-C DB90.1 Box provides an average dose of min. 150 mJ/cm^2 - **higher than typical doses required for 99.99% reduction of microbes**



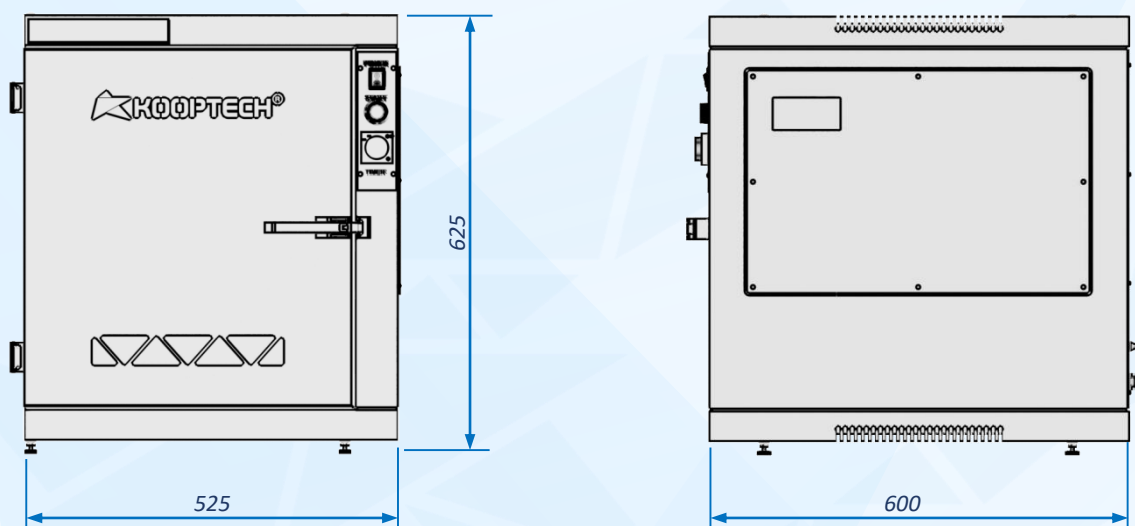
Developed based on International Ultraviolet Association Inc. resources³



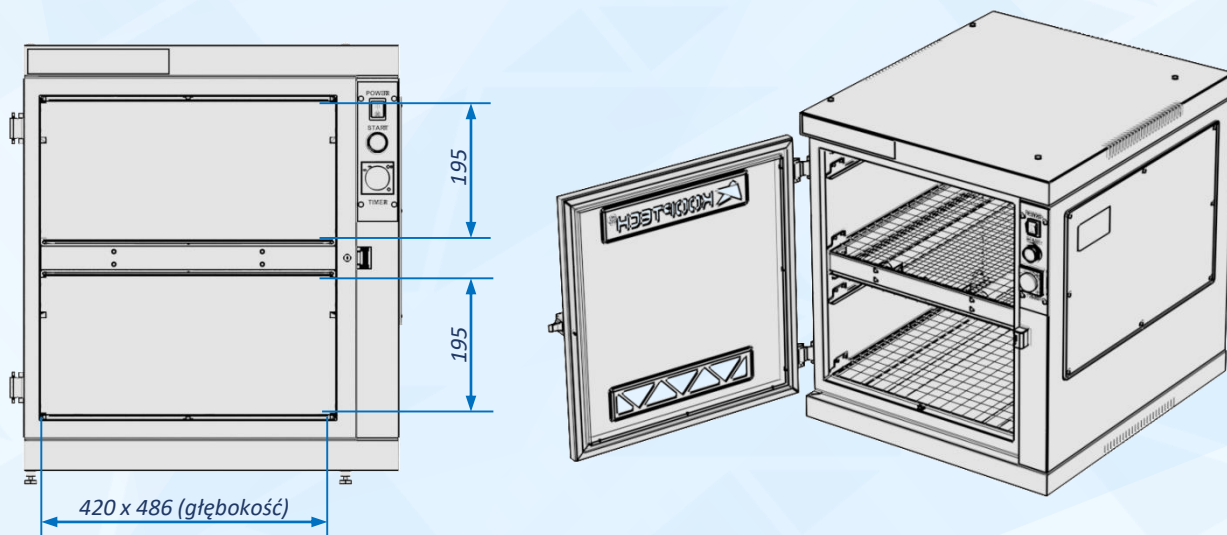
max load per shelf
(4 kg)

TECHNICAL SPECIFICATION

external dimensions



Internal dimensions



Dimensions in millimeters

TECHNICAL SPECIFICATION

parameter	Kooptech® UV-C DB90.1 Disinfection Box
dimensions (W x H x D)	525 mm x 625 mm x 600 mm
weight (without baskets)	35.0 kg
nominal supply voltage	1-phase, 230 VAC 50 Hz
connection power	90 W
power connection cable length	1.5 m
cycle time	3 min
max ambient temperature	35°C)
max ambient humidity	80% (no condensation)
UV-C lamps specification	6 x15 W T8 UV-C (254 nm germicidal lamps)
UV-C lamps life	9 000 hrs*
minimum UV-C irradiance 100 mm away from the lamps	10 W/m ²

*With Philips TUV T8 15W UV-C lamps, at depreciation of UV-C output by -10% (based on manufacturer's data)

Production and distribution

Kooptech-Cinema Sp. z o.o.

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