

Qubozone

OZONIZZATORE PROFESSIONALE



SANITIZES ENVIRONMENTS,
OBJECTS, SURFACES AND FABRICS
AND DISINFECTS AND PURIFIES
THE AIR.

WITH REMOTE CONTROL



CESARE
QUARANTA



TECNOLOGIA
D'ECCELLENZA
MADE IN ITALY

We are an Italian company that designs and manufactures electro-medical technologies.

The company enjoys two ISO :

- ▶ **ISO 9001:2015:** design, manufacture and service of electromedical device for dermatology and aesthetic medicine. Design, manufacture and service of electronic equipment for the aesthetic sector. Marketing and sale of cosmetic products;
- ▶ **ISO 13485:2016:** design, manufacture and service of electromedical device for dermatology and aesthetic medicine.

Each device is produced in our laboratories in Chieri (TO) with innovative tools and in accordance to the best reliability tests.



C E S A R E
Q U A R A N T A



Certified Management System
ISO 13485:2016



CERTIFIED
MANAGEMENT SYSTEM
ISO 9001:2015

**CHOOSE THE MOST SUITABLE QUBOZONE
FOR YOUR NEEDS**



**SANITIZES AND DISINFECT
UP TO 1.440 m³/h**

Qubozone
OZONIZZATORE PROFESSIONALE

Devices designed and produced in Italy with the CE mark for the disinfection and sanitization of environments through ozone and for the air purification with UVC radiation.

Their technology allows you to sanitize any space in a short time, in absolute comfort and with high performance. Furthermore, it ensures hygienic-sanitary conditions in compliance with regulations.

UVC SERIES



QUBOZONE UVC

For disinfection and air purification through **UVC radiation**.



QUBOZONE UVC PLUS

Double action, **UVC radiation** plus **ozone**, for disinfection and sanitation of surfaces and air.



UVC SERIES

- **QUBOZONE UVC**
18/36/72 WATT
- **QUBOZONE UVC PLUS**
20.000mg/h and 18 WATT
20.000mg/h and 36 WATT
20.000mg/h and 48 WATT
40.000mg/h and 48 WATT



A device designed and produced in Italy with the CE mark for the disinfection and purification of the air through UVC radiation.

Qubozone[®]
UVC
SANIFICATORE PROFESSIONALE

➤ **QUBOZONE UVC**
18/36/72 WATT

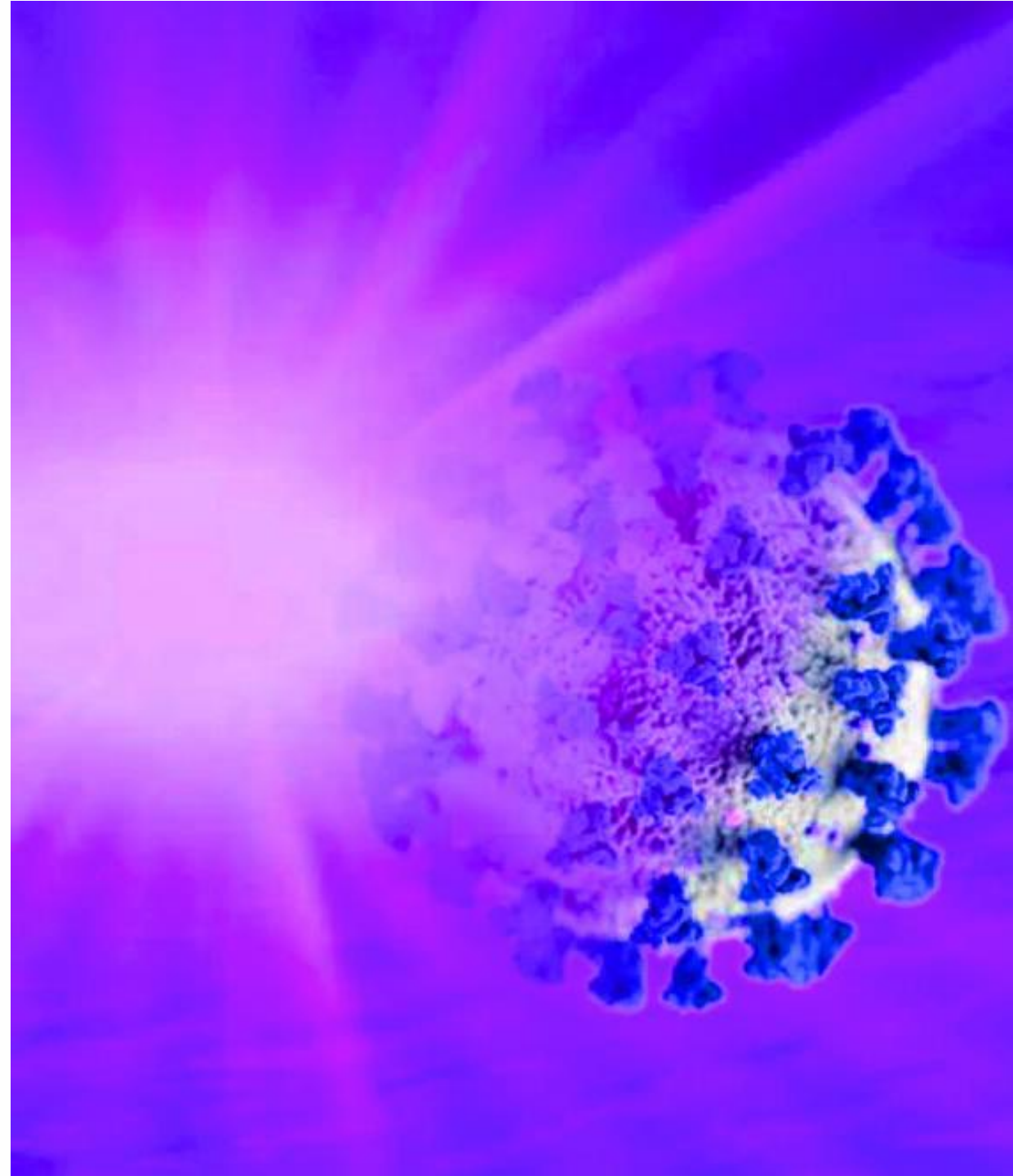
Volumetric purification
flow rate of 360 m³/h

ULTRAVIOLET LIGHT

Ultraviolet (UV) radiation is defined as the portion of the electromagnetic spectrum that includes the range of electromagnetic radiation whose wavelength is between 100 and 400 nm. This is non-ionizing radiation.

Ultraviolet (UV) radiation is divided into:

- ▶ UVA (320-400 nm)
- ▶ UVB (280-320 nm)
- ▶ **UVC (200-280 nm)**
- ▶ VUV (100-200 nm)

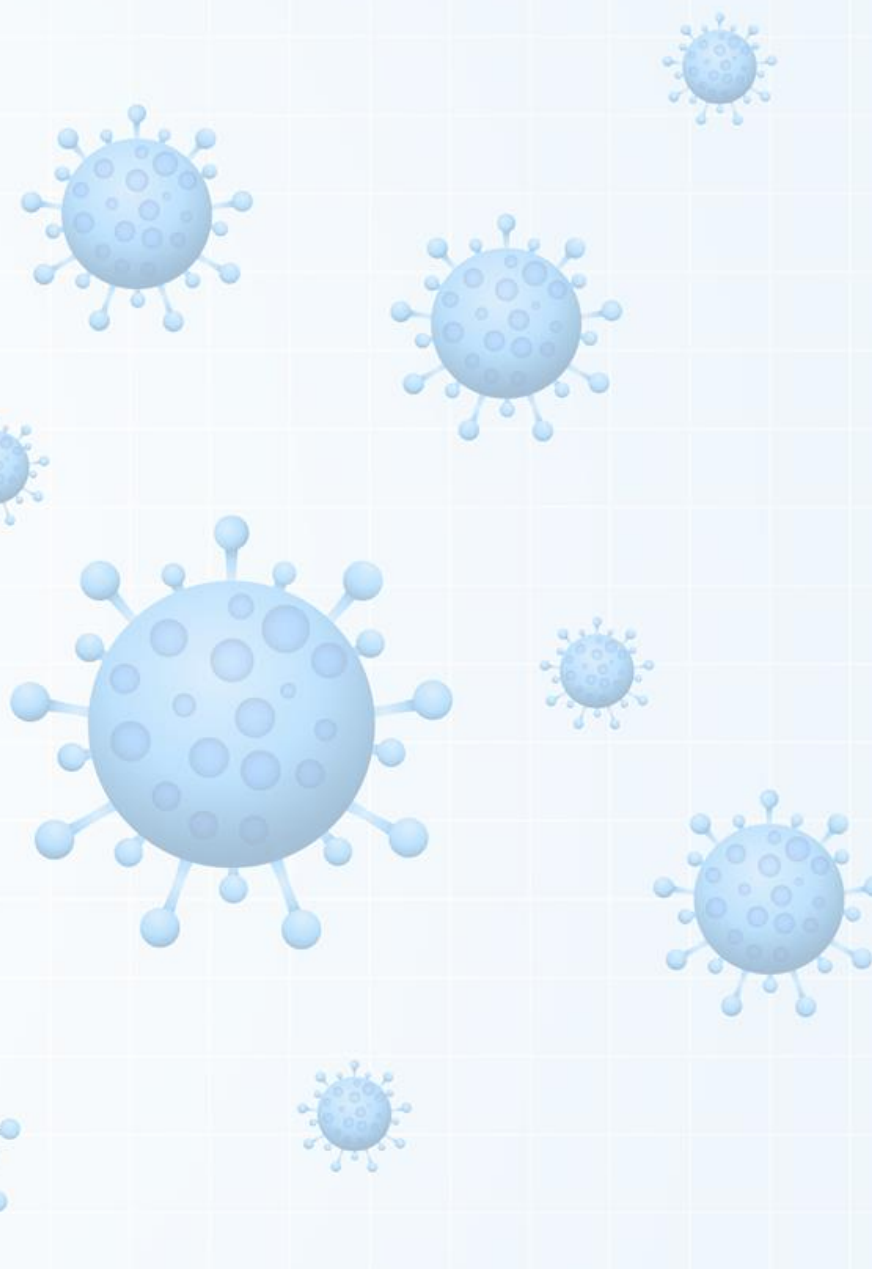


THE GERMICIDAL EFFECT OF UVC

UV-C radiation has demonstrated virucidal and germicidal properties, having the ability to modify the DNA or RNA of microorganisms, preventing them from reproducing and therefore being harmful.

For this reason it is used in various applications, such as the **disinfection of air**, water and food, and has proved effective in reducing infections in hospitals and other facilities.

When using germicidal UV lamps, it is important to choose systems to avoid the loss of UVC and the undesirable effects.



4 STEPS FOR DISINFECTION OF AIR



.01

THE DEVICE
TAKES THE AIR
FROM THE
ENVIRONMENT;

.02

THE UVC RADIATION
ACTS ON
MICROORGANISMS
PRESENT IN THE AIR.
IT MODIFIES THEIR
STRUCTURE,
INACTIVATING THEM
AND PREVENTING THE
REPRODUCTION;

.03

MEANWHILE,
FILTERS CLEAN
THE AIR
BY THE DUST;

.04

THE PURIFIED AIR
IS INTAKEN INTO
THE ROOM.

FOCUS ON ULTRAVIOLET RADIATION

UVC action has a long history in cleaning and purifying the air of environments. **Although UVC can be used as an only solution, it is often used in synergy with other technologies.**

QUBOZONE UVC uses UVC radiation to sanitise premises, offering safety and effectiveness. Qubozone UVC has a continuous air disinfection and purification cycle. UVC radiation has proven virucide and germicide properties and works by modifying the DNA or RNA of microorganisms, preventing them from reproducing and thus rendering them harmless.

We have chosen the most performing Philips lamps on the market, thanks to the quality and guarantee of the product, efficacy and safety of action are ensured. These lamps are composed of a specific glass that allows the UVC to act correctly but safely. This allows to avoid that the UVC rays of the lamp produce unwanted ozone in the presence of people, maintaining only the desired germicidal effect.

Philips lamps are able to destroy microorganisms such as bacteria, viruses, molds, yeasts and protozoa. UVC works by using a photolytic effect whereby the radiation destroys or inactivates the microorganism avoiding their replication.

ADVANTAGES

Qubozone[®]
UVC
SANIFICATORE PROFESSIONALE

- PRESENCE TREATMENT
(CONTINUOUS FLOW - CAPACITY 360 m3)
- 100% NATURAL AND ECOLOGICAL
- NOISELESS
- NO TRACE OR TOXIC RESIDUES
- NO POLLUTING AGENTS
- USING ONLY THE OXYGEN PRESENT IN THE AIR
- NO ADDITIVES OR CHEMICAL DETERGENTS
- INNOVATIVE AND CONVENIENT
- SMALL SIZE
- EASY TO USE THANKS TO REMOTE CONTROL



A device designed and manufactured in Italy with CE mark for sanitizing environments through **ozone** and for air purification through **UVC radiation**.

Qubozone
UVC Plus
SANIFICATORE PROFESSIONALE

QUBOZONE UVC PLUS

- 20.000mg/h and 18 WATT
- 20.000mg/h and 36 WATT
- 20.000mg/h and 48 WATT
- 40.000mg/h and 48 WATT

Sanitizes and disinfects
up to 1.440 m³/h

QUBOZONE UVC PLUS GERMICIDAL AND VIRUCIDAL EFFECT

It is a device that combines two technologies, ozone and UVC radiation, to constantly reduce the bacterial and viral load of the environments as a whole.

OZONE: sanitizing all surfaces including fabrics. The presence of people or animals during the treatment is forbidden.

UVC radiation: continuous disinfection and purification of the air. People or animals may be present during the treatment.

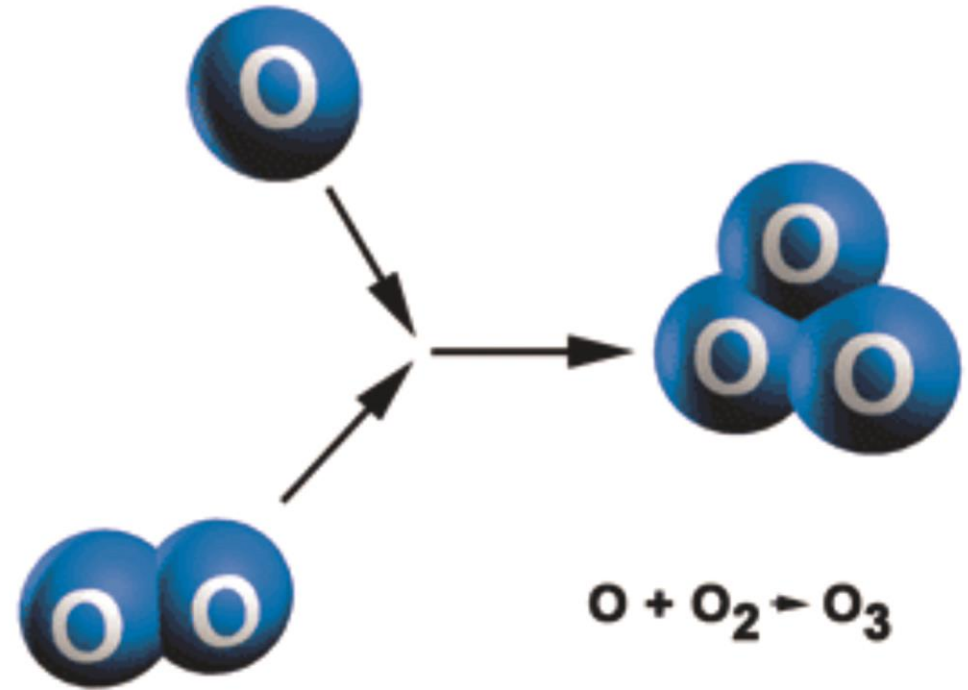


QUBOZONE UVC PLUS

- ▶ **QUBOZONE UVC PLUS offers a real complete solution**, ozone generator combined with a system for the disinfection of the air thanks to UVC rays.
- ▶ The advantage of this solution is the possibility of using the Qubozone not only for ozone environmental sanitation (which requires the evacuation of people during treatment) but for the **continuous disinfection of the ambient air, even in the presence of people.**
- ▶ From the safety point of view it is completely sure as people and materials are not directly exposed to **UVC radiation**, as the UVC radiation will remain confined within the device chassis.
- ▶ Recent documents published by the Higher Institute of Health about protection from **COVID-19** clearly mention **treatment using ultraviolet radiation** as an effective system for the disinfection / sanitation of environments and surfaces as part of the recommended sanitation activities.

THE OZONE

- ▶ Ozone is a gas made up of three oxygen atoms (O₃) and has the great ability to oxidize and disinfect.
- ▶ Disinfects without additives and chemical detergents, exploiting its natural oxidizing force.
- ▶ Shortly after use, the ozone delivered turns back to 100% oxygen without releasing traces and any toxic or chemical residues.



ADVANTAGES



FAST TREATMENT (FROM 5 TO 60 MINUTES UP TO 720 m³)

100% NATURAL AND ECOLOGICAL

NO TRACE OR TOXIC RESIDUES

NO POLLUTING AGENTS

USING ONLY THE OXYGEN PRESENT IN THE AIR

NO ADDITIVES OR CHEMICAL DETERGENTS

INNOVATIVE AND CONVENIENT

SMALL SIZE

EASY TO USE THANKS TO REMOTE CONTROL

4 STEPS OF OZONE



.01

THE SURROUNDING ENVIRONMENT OXYGEN ENTERS THE MACHINE.

.02

OXYGEN IS TRANSFORMED INTO OZONE (O₃).

.03

ELIMINATION PROCESS OF BACTERIA AND VIRUSES THAT YOU CAN FIND ON ANY TYPE OF OBJECT, FABRIC AND SURFACE STARTS.

.04

ONCE THE ENVIRONMENT HAS BEEN CLEANED, THE SYSTEM QUICKLY CONVERTS THE OZONE (O₃) TO OXYGEN (O₂).

TECHNICAL PRODUCT SHEET

QUBOZONE UVC

	QUBOZONE UVC 18	QUBOZONE UVC 36	QUBOZONE UVC 72
Type	Generator of UVC	Generator of UVC	Generator of UVC
Flusso Aria	360 m ³ /h	360 m ³ /h	360 m ³ /h
Model	Qubozone UVC 18	Qubozone UVC 36	Qubozone UVC 72
Voltage	220V/250V monofase 50/60 Hz	220V/250V monofase 50/60 Hz	220V/250V monofase 50/60 Hz
Operating Conditions	Environmental temperature 15°C <T< 35°C	Environmental temperature 15°C <T< 35°C	Environmental temperature 15°C <T< 35°C
Ambient Humidity	Max 60%	Max 60%	Max 60%
Conformità	DIRECTIVE 2014/35/UE LVD DIRECTIVE 2014/30/UE EMC DIRECTIVE 2011/65/UE RoHs	DIRECTIVE 2014/35/UE LVD DIRECTIVE 2014/30/UE EMC DIRECTIVE 2011/65/UE RoHs	DIRECTIVE 2014/35/UE LVD DIRECTIVE 2014/30/UE EMC DIRECTIVE 2011/65/UE RoHs

CE marking

The above technical data may vary for technical/performance reasons for improvement purposes.

**QUBOZONE UVC
18**

**QUBOZONE UVC
36**

**QUBOZONE UVC
72**

Storage and transport conditions Ambient temperature

-10 °C < T < 70 °C

-10 °C < T < 70 °C

-10 °C < T < 70 °C

Built-in Timer

Schedule timer 7 days / 24 hours

- 16 ON / OFF programs per day, 15 combinations per week
- Accurate control per minute
- Easy to read LCD display, LED ON / OFF indicators
- Reset function and manual control
- Battery backup due to power failure

Schedule timer 7 days / 24 hours

- 16 ON / OFF programs per day, 15 combinations per week
- Accurate control per minute
- Easy to read LCD display, LED ON / OFF indicators
- Reset function and manual control
- Battery backup due to power failure

Schedule timer 7 days / 24 hours

- 16 ON / OFF programs per day, 15 combinations per week
- Accurate control per minute
- Easy to read LCD display, LED ON / OFF indicators
- Reset function and manual control
- Battery backup due to power failure

The above technical data may vary for technical/performance reasons for improvement purposes.

LAMP CHARACTERISTICS

	QUBOZONE UVC 18	QUBOZONE UVC 36	QUBOZONE UVC 72
Type of lamp	Low pressure mercury lamps	Low pressure mercury lamps	Low pressure mercury lamps
Electric power	18 W	36 W	72 W
Useful life	9000 h	9000 h	9000 h
CE marking			

The above technical data may vary for technical/performance reasons for improvement purposes.

TECHNICAL PRODUCT SHEET

QUBOZONE UVC PLUS

	QUBOZONE UVC PLUS	2018	2036	2048	4048
Type	Ozone Generator with UVC LAMP				
Ozone Flow		20.000 mg/h	20.000 mg/h	20.000 mg/h	40.000 mg/h
Air Flux	320 m ³				
Model	Qubozone UVC PLUS				
Voltage	220V/250V monophase 50/60 Hz				
Operating Conditions	Environmental temperature 15°C <T< 35°C				
Ambient Humidity	Max 60%				
Compliance	DIRECTIVE 2014/35/UE LVD DIRECTIVE 2014/30/UE EMC DIRECTIVE 2011/65/UE RoHs				
CE marking					

The above technical data may vary for technical/performance reasons for improvement purposes.

QUBOZONE UVC PLUS - LAMPS		2018	2036	2048	4048
Type of lamp	Low pressure mercury lamps				
Electric power		18	36	48	48
Useful life	9000 h				
CE marking					

The above technical data may vary for technical/performance reasons for improvement purposes.

OZONE ACTION TIMING

TIME	QUBOZONE UVC PLUS 2018 - 2036 - 2048	QUBOZONE UVC PLUS 4048
5 minutes	60 m ³	120 m ³
10 minutes	120 m ³	180 m ³
15 minutes	180 m ³	360 m ³
30 minutes	360 m ³	720 m ³
60 minutes	720 m ³	1.440 m ³

ALL THE ENVIRONMENTS

MEDICAL FIELD

medical office,
pharmacy, clinics,
local health
authority, hospital,
nursing and rest
home

FOOD INDUSTRY

restaurant / pizzeria,
bar, patisserie, food
company, self service
/ canteen,
supermarket

PRIVATE SECTOR

corporate office,
shops,
shopping center,
bank, home, cars

PUBLIC SECTOR

school, cinema,
public offices,
nursery and gym

WELLNESS INDUSTRY

beauty center, spa
center, hairdresser,
gym

HOTEL INDUSTRY

hotel, b & b,
farmhouse

Protocols, Concessions and Legislative Decree.



Ministero della Salute

The MINISTRY OF HEALTH, with protocol No. 24482 of 07/31/1996, has recognized the ozone sanitization system as: "NATURAL PROTECTION for the sterilization of ENVIRONMENTS CONTAMINATED BY BACTERIA, VIRUS, SPORE and PARASITE

This cleaning system has been defined as a safe agent "GRAS" by the US authority Food and Drug Administration (F.D.A.), the strict government agency that deals with the regulation of food and pharmaceuticals. The Italian Ministry of Health recognizes the ozone as a "natural device for the sterilization of environments contaminated by bacteria, virus, spores etc.." (24482 protocol of 07/31/1996).

Protocols, Concessions and Legislative Decree.



In compliance with the Protocol for Security in the Companies - Covid / 19, the company is called to ensure daily cleaning and periodic sanitization of professional environments (workstations and common areas).



Treatment compliant with H.A.C.C.P. hygiene rules and on the protection and safety of workers (Legislative Decree 81/08).

Bibliography

- Kowalski W., Ultraviolet Germicidal Irradiation Handbook. Springer, 2009
- Istituto Superiore di Sanità. Rapporto ISS COVID-19 n. 25/2020. Raccomandazioni ad interim sulla sanificazione di strutture non sanitarie nell'attuale emergenza COVID-19: superfici, ambienti interni e abbigliamento. Versione del 15 maggio 2020.
- SCHEER (Scientific Committee on Health, Environmental and Emerging Risks), Opinion on biological effects of UV-C radiation relevant to health with particular reference to UV-C lamps, 2 February 2017.
- CDC/NIOSH. Recommended Exposure Limit. REL, 2015.
- Stephen B. Martin Jr., Chuck Dunn, James D. Freihaut, William P. Bahnfleth, Josephine Lau, and Ana Nedeljkovic-Davidovic. Ultraviolet germicidal irradiation - current best practices. Ashrae J. 2008 Aug; 50(8): 28-36.
- 2016 ASHRAE Handbook – HVAC Systems and Equipment - Chapter 17 ULTRAVIOLET LAMP SYSTEMS
- ECRI. Technology briefing: UV room disinfection devices. Health Devices 2020 Sep 10.
- ECRI. Evaluation background: UV room disinfection devices. Health Devices 2020 Apr 30.
- ECRI. Avoiding Misuse of UVC Room Disinfection Technology. Health Devices 2018 Nov 14.
- Philips, Product family leaflet, 2020, October 1
- Philips - Ultraviolet purification application information Philips, 2006



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