

STERYBOX

Device for airborne disinfection in medical environments, hospitals, surgeries, dental offices, sterilisation and diagnosis rooms.

The air contaminated by the passing people and by medical activities is a vehicle for infections and contagions, for both the medical staff and the patients. Several viruses and bacteria spread in fact through the air (i.e. tuberculosis, influenza, diphtheria, etc.). The functional tests carried out in independent laboratories prove the **elimination of viruses, germs, moulds and spores up to 99.99%***.

(Draw) **UV-CHRIS - UltraViolet High Reflecting Coil Irradiation System**: the patented multistage cascading system for the high UVC irradiation of the environment air. The system increase irradiation up to 400% comparing with traditional linear air flow UVC devices.

STERYBOX is an innovative device for reducing the bacterial charge of the air in environments at risk of aerial contagion, such as sterilisation rooms, dentist's surgeries, laboratories for diagnostics and analysis, operating theatres, first aids, etc. This device uses the well-known properties of the UV-C germicidal radiation at 254 nanometres (UVGI) and, specifically, the capacity of denaturing the genetic material of the cells it strikes, by inactivating every type of microorganism present in the air (bacteria, germs, moulds, viruses).

The germicidal radiation, which is isolated inside the device, prevents the spreading of the dangerous UV-C rays in the environment and it eliminates any side effect detrimental to health; the air is aspirated by the device through noiseless axial fans and it is then submitted to an intense UV-C radiations field trough a patented coil system; the air is purified and ready to be released into the environment, thanks to a continuous change of air.

Major benefits:

- 1) It can be kept working 24 hours a day regardless of the presence of persons: no fraction of the germicidal radiation can in fact strike directly eyes and skin, the radiation being contained inside the device; unlike the systems with UV-C radiations towards the ceiling, this device guarantees a total operative safety for both the staff and the patients;
- 2) The **UV-CHRIS - UltraViolet High Reflecting Coil Irradiation System** is a new, patented coil system with a concentration of ultraviolet radiations up to four times higher compared with the standard linear flow devices available on market. Thanks to it a 125-watt irradiation power is applied on a generation of a linear length of more than 2.5 metres, with an exposure of the air in direct contact of the lamps that is able to eliminate up to 99.99%* (tests show a virtual 100%) of bacteria and viruses present in the air. This system combines optimal performances with an incredibly small size: width 50 cm, height 60 cm, thickness 15 cm, allowing its installation also in sterilisation rooms, dental offices, medical sooms, surgeries areas and first aids, even with small dimensions (mobile emergency, camp hospitals, etc).
- 3) Two noiseless axial fans Service-Free of 120 mm with real capacity of 100 cubic metres per hour (capacity in free air more than 300 m³/h), guarantee the airflow for several changes of air. To insure a correct change of air every hour, a device every 50 m³ of volume should be installed (a 215 ft² room), multiple devices may be installed: up to 50 m³ one device, from 50 to 100 m³ two devices on two opposite sides, from 100 to 150 m³ three devices on three sides, etc.
The device only needs electricity supply and it can be installed on the wall in few minutes. A silencer reduces the noise made by air coming out of the device, which is lower than an ordinary air conditioning system, so that it is not annoying for the medical staff even in case of continuous working conditions;
- 4) The continuous change of air minimises the bacterial charge of the environment that does not experience alterations in the concentration of suspended microorganisms due to the presence and to the activity of persons. This allows critical steps such as: extraction of tools from the autoclave into an envelope, opening and application of osteo-integrated implants, surgical and cosmetic operations, diagnostics visits, etc. always controlling the environmental contamination. The system eliminates every type of virus including HIV, HBV, TBC, bacteria, germs and microorganisms;
- 5) Thanks to the patented UV-CHRIS system the irradiation is extremely effective as a result of the direct contact with the highly efficient, not-screened germicidal UV-C lamps, with an average

distance of the air from the point of emission of only 2.5 cm (1 inch). This "multistage cascading system" guarantees a powerful action of the ultraviolet rays at a close distance along a "channel" more than 2.5 meters long (8.2 feet): the quality of the radiations and the time of exposure ensure the destruction of all microorganisms present in the air, at every passage;

- 6) An electronic control switch allows to set times for the automatic starting and stopping of the device, both daily and weekly: i.e. from 5.00 to 22.30, from Monday to Friday. Operations for the setting are easy and rapid thanks to an intuitive system with LCD display and step-by-step instructions, available in 6 different languages. A practical control system with a lead hour-counter ensures a correct maintenance program and consequently an optimal functioning over time. Maintenance is minimum: a change of lamps every 8,000 hours, with an average duration of 2 years for a day use and of 1 year for a continuous use day/night. Lamps are easily replaced in few minutes and original spare parts are labelled with a warranty label (the new lamps cannot be distinguished at sight from the used ones);
- 7) The device does not use any chemical substance. Size: 50x15x60H cm – Weight 25 Kg – Maximum input 200 W - UVGI Lamps 5x25W – UV-C Output 351 η W/sec/1mt - Air flow UV-C Irradiation 10.000 η W/sec – Air volume change regulation: 1 fan >20 m³/h, 2 fan >50 m³/h.

*STERYBOX has passed strict controls that prove its effectiveness both in microbiology laboratories and in dentist's surgeries, medical and veterinarian surgeries, and guarantee its full functionality and utility. Tests were carried out by external laboratories at the Italian Ministry of Health and they were accredited by the competent bodies. The effectiveness of the sterilisation through exposure to UVC rays is proved also by several research carried out by prestigious Institutes and Universities worldwide and by several scientific journals available from every ordinary source of medical information (Pubmed); a collection of these articles and the specific scientific documentation for the device is available on request. STERYBOX is produced in Italy in accordance with EU laws (CE) with 12-month warranty.