

'mens sana in corpore sano' a breath of HEALTHY AIR

SANITIZE your room



The air we breathe, especially indoors, is polluted by dust, bacteria, viruses, pollen, various odors, chemical elements, etc.

Breathing in a sanitized environment is a condition that helps us to prevent infectious diseases, including the common cold and various seasonal flus.

Air filtering is therefore a method of reducing pollution from the elements mentioned above, but, especially in small rooms where there are no centralized air conditioning and / or air conditioning systems, it is not usually done.

**SALUS** is our proposal focused on pollutants such as bacteria and viruses, vehicles of sometimes serious infections.

Other than mechanical filtering, it exhists various method to reduce pollutants. Among the more effective there is the method we have selected, by

# using the ultraviolet rays, in particular the UV-C type, with germicidal action (UVGI).

It is widely demonstrated that ultraviolet rays, at the optimal wavelength of 253.7 nm (UVGI), have excellent efficacy in killing bacteria and viruses.

For this reason they are widely used since decades in water sterilization, for sanitizing in food laboratories, etc.

As it is also known that this type of radiation is harmful if irradiated on living humans, the primary purpose of using it in the presence of people is to avoid direct radiation.

E' ampiamente dimostrato in letteratura scientifica che i raggi ultravioletti, alla lunghezza d'onda ottimale di 253,7 nm (UVGI), hanno un'ottima efficacia nell'abbattimento di batteri e virus. Per questo sono ampiamente usati da **decenni** nella sterilizzazione dell'acqua, per la sanificazione nei laboratori alimentari, ecc.

Essendo altresì noto che questo tipo di irraggiamento è nocivo se irradiato sugli esseri viventi, lo scopo primario per poterlo usare in presenza delle persone è di evitare l'irraggiamento diretto.

**SALUS** HAS BEEN DESIGNED ON PURPOSE TO OPERATE IN PRESENCE OF PEOPLE.

#### Operation

**SALUS** is an is an air sanitizer for professional use and is used to break down up to 99.9% bacteria, viruses, microorganisms present in the air and therefore to "sterilize" it. It essentially consists of a UV-C germicidal lamp, and a fan for air circulation.

The air is sucked in by the fan, passes through a mechanical dust filter that blocks the coarser dust, circulates in the reflecting chamber radiated by UV-C rays with germicidal action (UVGI), and is gradually sanitized.

The relatively low noise ventilation is the result of a compromise between the need to convey the greatest possible amount of air and the reduction in noise given by the fan. The particular shape of the irradiation chamber, placed between two **optical labyrinths**, avoids the dispersion in the environment of ultraviolet irradiations, which are also harmful to the human body.

Unlike other sanitizing systems, this appliance has the very important advantage of being able to be used while people are in the room to be kept sanitized.



#### TECHNICAL DESCRIPTION

Built in AISI 430 stainless steel, with scotch brite brushed finish;

or with the exterior covering in ivory-white painted steel.

The dust filter can be easily replaced by removing the filter holder placed in the lower part. The structure can be easily opened for maintenance, to replace the lamp or deteriorated electrical parts.

Axial fan with high volumetric flow rate.

The germicidal lamp (Philips TUV PL-S) that emits the ultraviolet rays at the wavelength of 253.7 nm is of high quality, with a duration up to 9000 hours and with constant gemicidal efficacy over time.

Therefore, calculating a daily use of 12 hours, the lamp can last up to 2 years (one year in case of continuos use 24 hours/day).

A single passage of air is sufficient to kill viruses and bacteria when passing in front of the germicidal lamp due to the extreme proximity (1 - 5 cm) to the UV-C source.

Power supply with cable with Schuko plug. Lighting power switch, fan speed selector.

#### Avaliable for

- wall mounting (version -P),
- countertop or floor (version -T).

#### **TECHNICAL DATA**

Model / dimensions SALUS-P (wall mounting) / cm 20x15x40H Model / dimensions SALUS-T (countertop ) / cm 20x15x52H

Weight kg 4,5

Germicidal lamp 1 x 9 W UV-C

UV-C radiation level 2,3 W Total power 40 W

Power supply 230V-1-50Hz

Air flow about 80 mc/h (50 mc/h at low speed)

Noise level at normal speed < 50 dB Noise level at low speed < 30 dB Ozone emission (O3) not significant

UV-C external emission none

Installation (-P) wall mounting, (-T) countertop or floor

#### APPLICATION FIELDS

In an environment where the presence or flow of people is continuous, the choice of having a sanitized environment is at least a duty.

It is NOT enough to sanitize the rooms BEFORE the entry of people, because after a short time the presence of these leads to a gradual decrease in environmental sterilization. In other words, the people present breathe, emitting into the environment, in addition to carbon dioxide, also aerosol streams loaded with pathogens (bacteria, viruses, etc.).



This gradually and inevitably causes the formation of a de-sanitized environment.

Where there are no centralized systems designed for continuous air sanitization, we can generate continuity of sanitation using our **SALUS** air sanitizer.

#### **EXAMPLE:**

Assuming a small office of 30 square meters, we have about 85 cubic meters of air volume.

Considering the volume of exhaled air (ad abundantiam) per person in 10 lt / minute (0.6 m3 / hour) it is plausible to consider the article AIR-ST-1 sufficient to **continuously** sanitize this environment for at least 4 to 6 people (5 m2 per person) constantly present (1.5 cycles / total air changes per minute, i.e. 0.24 cycles / m per person). It is therefore advisable to install a sanitizer every 30 m2 of surface, or even every 60 m2 if

### WHERE

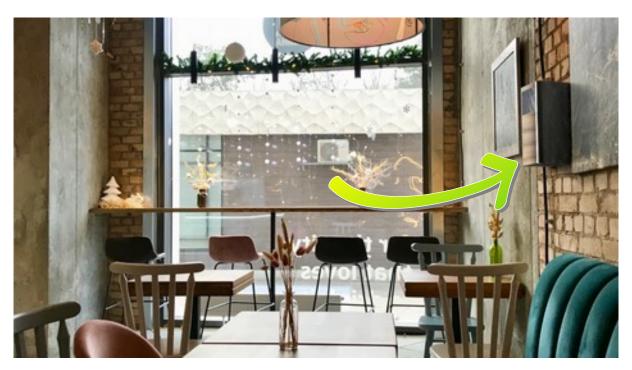
Everywhere there is a presence or flow of people.

the presence of people is reduced to 2 or 3.

In the CATERING: Dining rooms, Toilettes (anti-bath room); private rooms, etc.

In the OFFICES: the offices themselves, waiting rooms, meeting rooms, toilets, coffee break areas;

In LABORATORIES, MEDICAL OFFICES, etc.



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