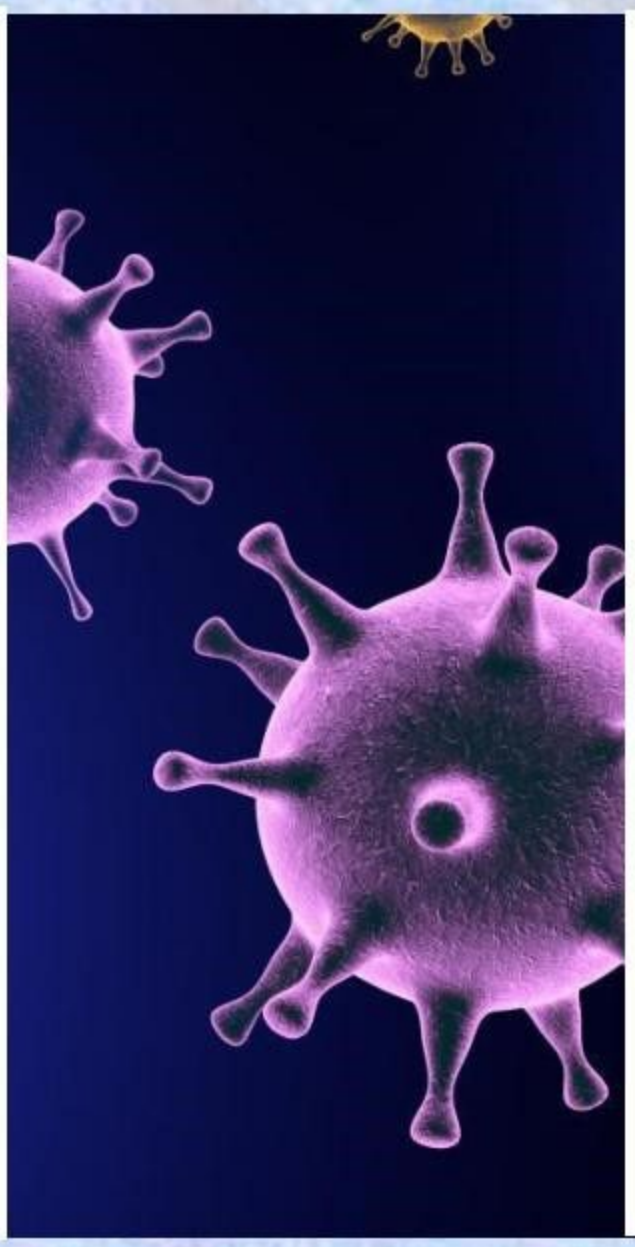
Let’s beat the virus together

Irradiation with ultraviolet radiation UV-C is one of the most effective methods for disinfection of air, liquids and surfaces. Advantages of this method are low operation costs and the fact that bacteria, viruses, molds and fungi do not become immunized against the ultraviolet radiation. The UV-irradiation allows large surfaces to be disinfected, does not contaminate environment and is simple for use. Traditional UV-C lamps can’t be used when people are inside of the rooms. Our equipment is air-flow type, UV-C radiation is present only inside of the device, which means that the air can be decontaminated when people are indoors.

VIR-WARRIOR 30



Our air-flow germicidal units are designed for the use in: hospitals, consulting rooms, beauty centers, hairdressers, offices, schools, farms, medicine production plants, food industry, warehouses, houses, flats and everywhere, where airborne microorganisms produce harmful effect.

ADVANTAGES OF AIR- FLOW GERMICIDAL DEVICE:

- It is efficient in killing viruses, the bacteria Pseudomonas aeruginosa, Eschericha coli and Candida albicans fungus. Scientific research confirms even a 99% reduction in microbes using this type of equipment.
- Disinfects air in rooms at the lowest cost.
- May be used in rooms occupied by people, animals or plants without any harmful effect.
- Operates quietly, emits neither harmful substances nor radiation.
- Contrary to chemical methods disinfected rooms are not contaminated with chemicals.
- It is a high quality product made in European Union (Poland), based on Philips components.
- It has a shapely, mobile design
- It is energy efficient
- It has an additional carbon filter
- It makes you feel safer

TECHNICAL DATA:

- Device power: 64 W
- UV-C radiator power: 2x15.9 W
- Radiators: PHILIPS TUV 15W / G15 T8
- Radiant life: 9000h (1000 starts)
- Radiation: 253.7 nm UV-C wavelength
- Carbon filter surface: 169 cm2
- Power supply: 230 V
- Max. efficiency: 161 (+/- 10%) m3 / h
- Noise level: 44 dBA
- Type: air-flow
- Protection against opening and escaping UV-C radiation
- Additional equipment: self-disinfecting carbon filter

Finally, an excerpt from an article from the professional press, describing the effectiveness of UV-C radiation in the fight against SARS-CoV-2.

UV, i.e. ultraviolet, is an invisible electromagnetic radiation spectrum of 10 to 400 nanometers. It is between visible violet light (hence the name "ultraviolet") and X-rays. We deal with ultraviolet radiation every day because it is emitted by the sun. Due to the Earth's atmosphere, the surface of our planet receives a limited range of UV waves that is safe for us. There are three ultraviolet ranges available and their safety for organisms is different:

UV-A - accounts for around 97 percent "Sun rays" reaching Earth (wavelength: 315–380 nm). It is the least harmful, although it can sometimes have the effect of faster skin aging,

UV-B - it is almost completely absorbed by the atmosphere, but a small part of it also reaches us. This range is responsible for tanning and secretion of vitamin D in the skin. Excessive exposure can be even the reason of skin cancer, as this radiation has the ability to damage DNA chains. (wavelength: 280-315 nm),

UV-C - completely absorbed by the atmosphere range of radiation (wavelength: 100-280 nm).

What we can confirm from the observations now, is the fact that the UV-A range does not affect effectively on coronavirus and other viruses too. Otherwise, it would be enough to expose surfaces to the sun to disinfect them, and bus shelters and handrails on the streets would be virus free.

From the same reason, viruses will not be damaged by the majority of UV and LED UV lamps for curing gel or hybrid nails that operate in the range from about 350 nm upwards, towards visible violet light.

The situation with UV-C radiation looks extremely different. This range of ultraviolet is being used, among others for disinfecting instruments in hospitals and dental offices. In this case, there are studies confirming the effective inactivation of the SARS-CoV coronavirus by UV-C rays, made in 2004, and everything indicates that they can also be referred to SARS-CoV-2.

According to the article published in the 121st issue of the Journal of Virological Methods from 2004, UV-C rays after 6 minutes of exposure from a distance of 3 centimeters reduce the reproduction of the virus by up to 400 times, and after 15 minutes they completely deactivate it (to a degree of undetectability). This result is 20 to 100 times better than with UV-B lamps. For UV-A rays, no changes in virus performance were detected during the study.

This means that UV-C rays show high effectiveness in the fight against viruses. The effectiveness of UV-B is definitely smaller, but still noticeable. For this reason, UV-C lamps are widely used in various health facilities or beauty centers for disinfection. However, it should be remembered that the most powerful lamps are professional equipment and you should not expose yourself and others (including animals) to UV-B and UV-C rays directly. Ultraviolet can be successfully used to disinfect various surfaces or objects (such as TV remote controls, smartphones, money, etc.), but not skin.

Therefore the most safe solutions are those, where UV-C radiators are placed in a secure and closed housing.