

Vossloh-Schwabe
your partner for UV-C applications

What is UV-C light?

How does UV-C light work?

VS Service & Support

UV-C lighting applications

Product portfolio



A technology for more security

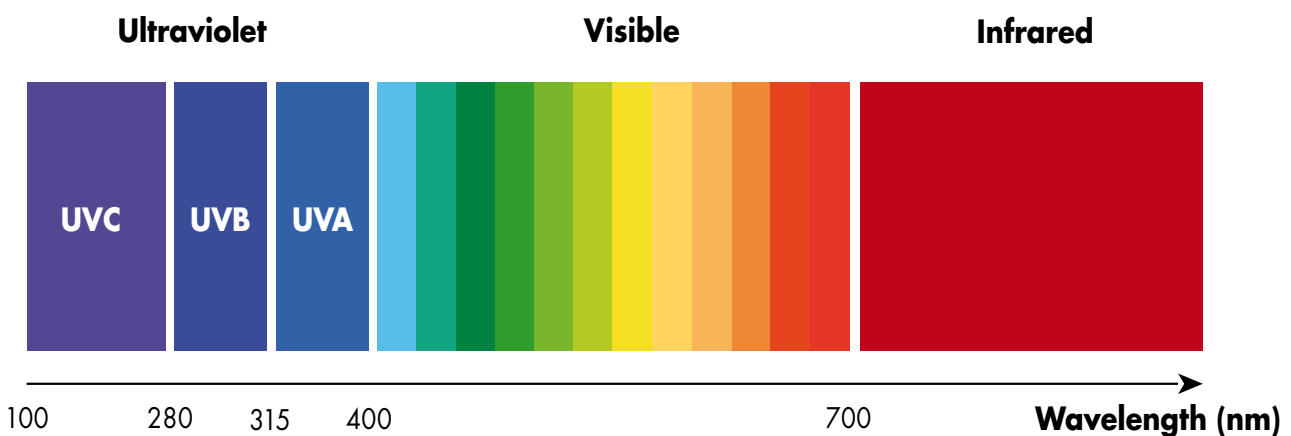
December 2019, the virus now known as SARS-CoV-2 is identified. The global impact of the COVID-19 disease at the economic, social, historical, institutional and scientific levels is, and will continue to be, huge.

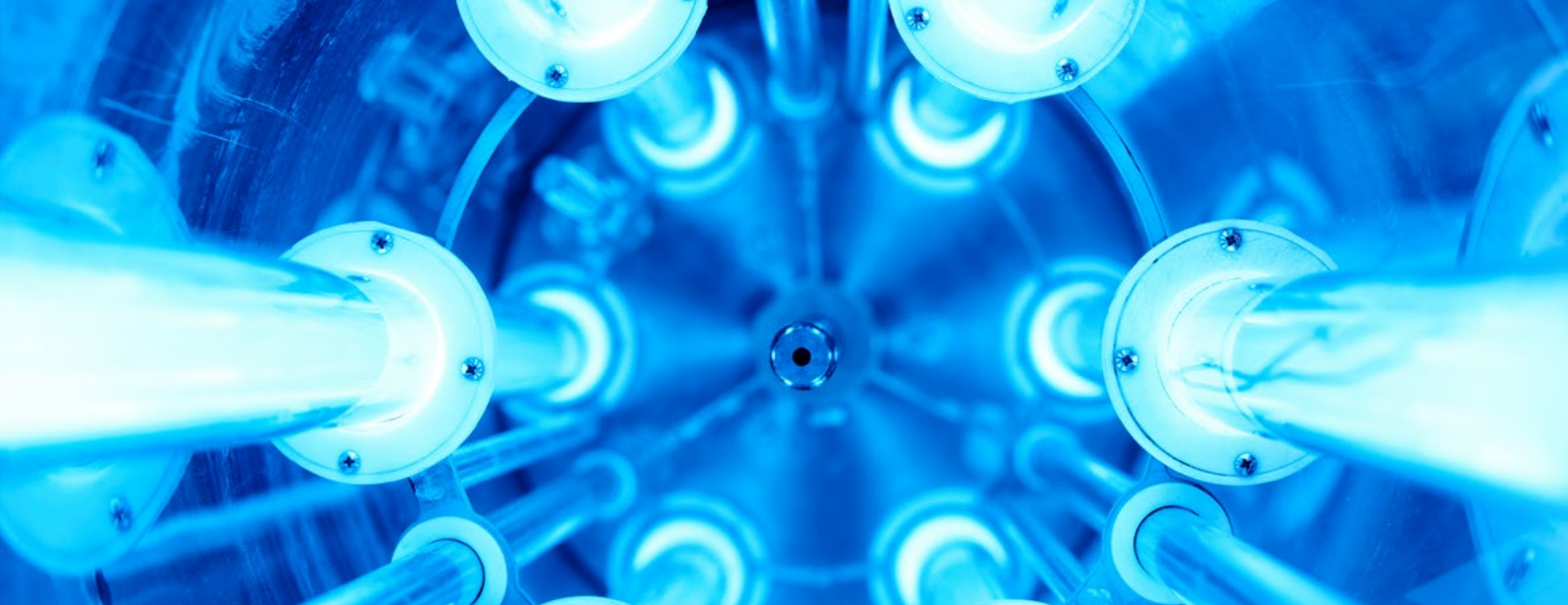
In the history of humanity, viruses have always been and always will be there; also thanks to their innate ability to change and jump from one host to another and also from one species to another as well.

But why are viruses so elusive? Because they are really simple but ingenious structures, a biological anomaly that allows them to save resources.

Every day we have to wear a mask to reduce the possibility of infections, trying to wash our hands whenever we can (the highest infection vector). But how can we sanitize the surfaces we touch every day? Using technology that is as old as it is current – Ultraviolet light.

Vossloh-Schwabe with over 100 years of history has developed a new lighting solution to improve and help our daily activities. On the following pages you can learn more about one of the latest solutions.





LED solutions for sterilization

Germicidal ultraviolet radiations are a tested and effective technology to kill microorganisms, ensuring bacteriologically controlled surfaces.

What is UV-C light?

The spectral range of ultraviolet radiation is between 100 and 400 nm and is invisible to the human eye. The wavelength of UV-C rays is between 100 and 280 nm and are the most efficient rays to disinfect surfaces in a short time.

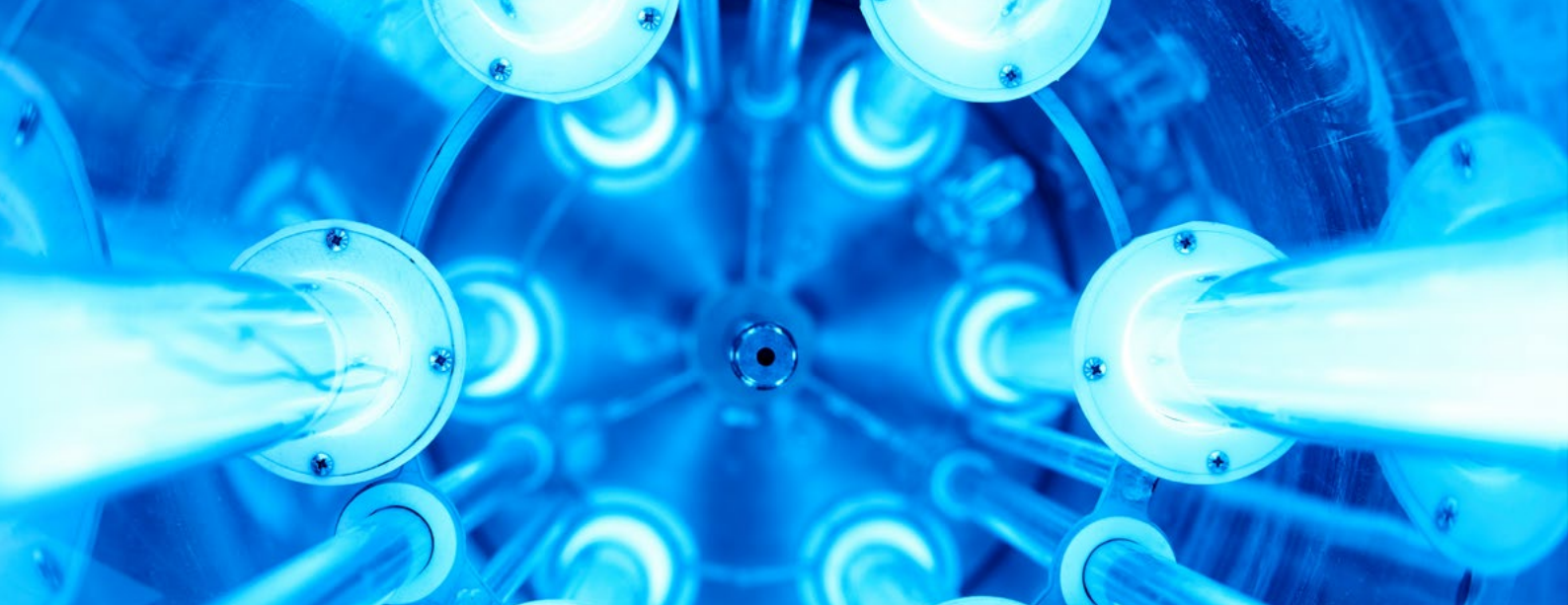
How does it work?

Scientific research has shown that ultraviolet rays are a valid disinfection system (physical and not chemical). All microorganisms that live in water or in the air (bacteria, viruses, fungi, algae, etc.) undergo an action by ultraviolet rays which stops their development process. UV rays act on the nucleus of the cell that, when properly irradiated, is subjected to a reaction that prevents the reproduction process in a completely natural way (damaging their protein structure to alter their DNA/RNA).

The use of UV-C sources requires special attention from the user, as exposure to these rays can cause inflammation and permanent damage. The absence of people or animals during their operation is therefore essential (through sensors, timers, smart systems etc.). Before installing any UV source, be sure to contact a qualified technician for the design stage. In addition, the VS team of experts can assist customers with any need.

Benefits of UV-C lighting

Scientific research documented, under experimental conditions, that exposure of samples with different viral concentrations to ultraviolet light type C (UV-C), was able to inactivate the SARS-CoV-2, and to inhibit its replication in cell cultures.



Our service – support from the beginning

Efficiency and safety in your UV-C application is the most important focus. The Vossloh-Schwabe team can support from the beginning to the end. We offer the right concept solution.



Correct design stage

Each application requires a correct sizing of the system



Simulation of the design stage

With our software we can verify the effectiveness of the system before creating the real model



Data collection

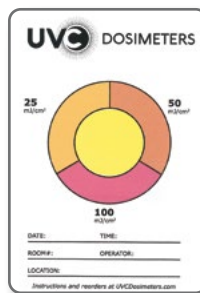
Verification of the effectiveness of the model in the application

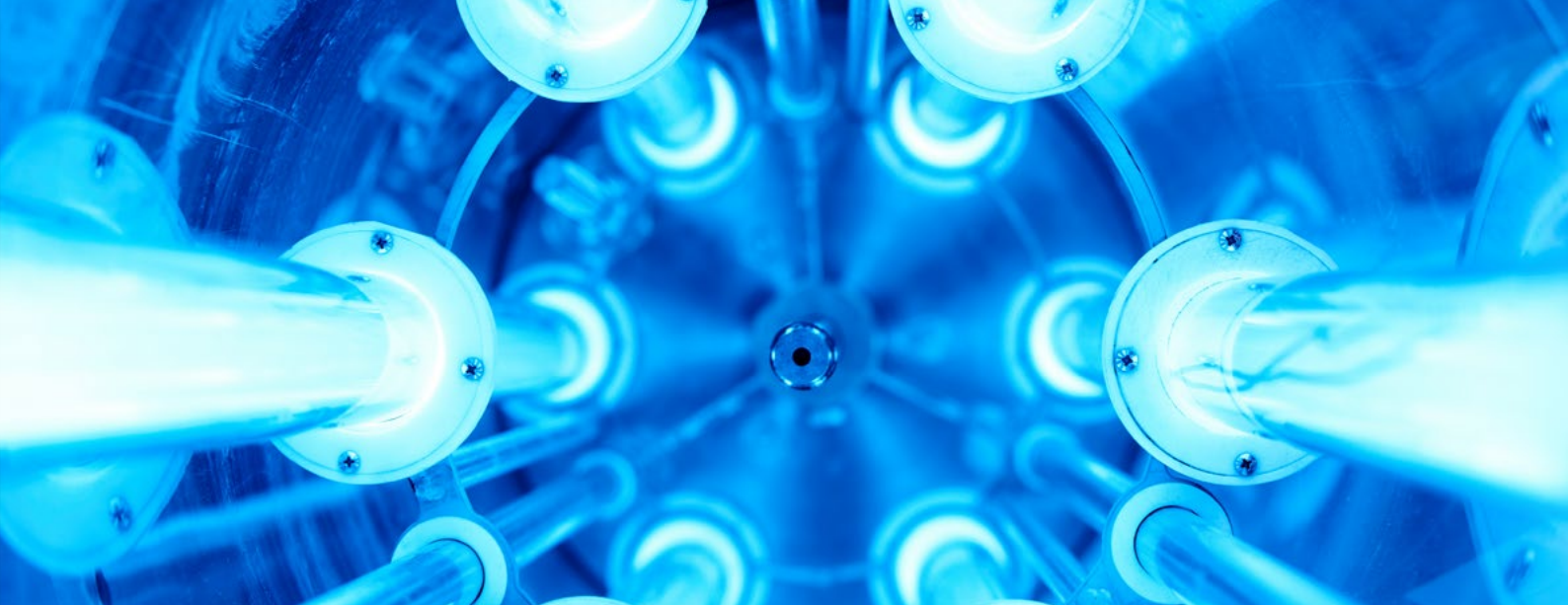


Microbiological test by accredited labs

Do you want to check the efficacy of your solution?

A different microorganisms need different UV dose to be deactivated. Also the exposure time is important. You can check the efficacy of your solution with our Dosimeters.

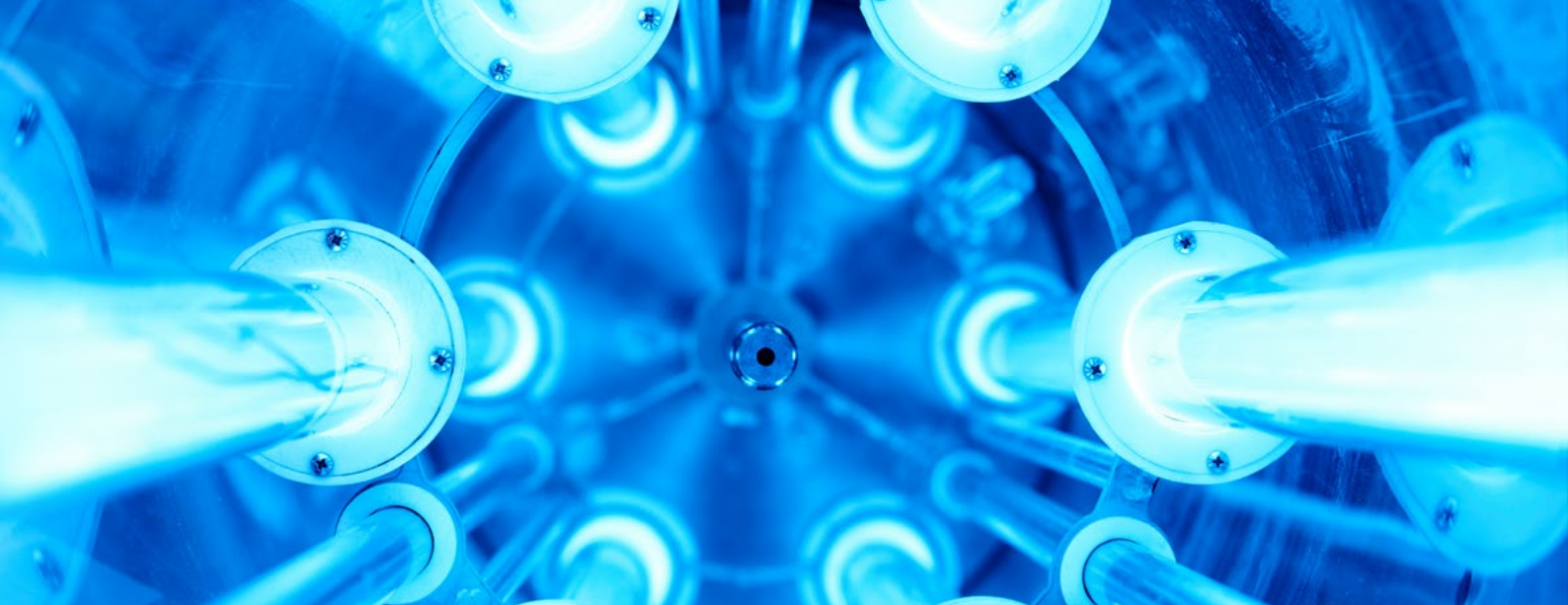




More than one application

The LED solutions for sterilisation can be used in many applications, where it is necessary to provide disinfected and clean surfaces. With waterproof versions, it is possible to implement the UV-C lighting technology even in dishwashers, refrigerators, laundry washing machines and more.





LED Solution for Sterilization

For cut-out 26x11.6 mm / 1.024x4.394 in

Fixing: holes for screws M3

Wall thickness: 1.4-2 mm



VIO275 S

This standard module is specially developed for applications like blast chillers.

Lens material:

Silicone + PA6

Beam angle:

90°

Typ. peak wavelength:

275 nm

t_c:

75 °C / 165 °F

Radiant flux maintenance:

L70 / 11,000 hrs.*

Leads:

FEP

Packaging unit:

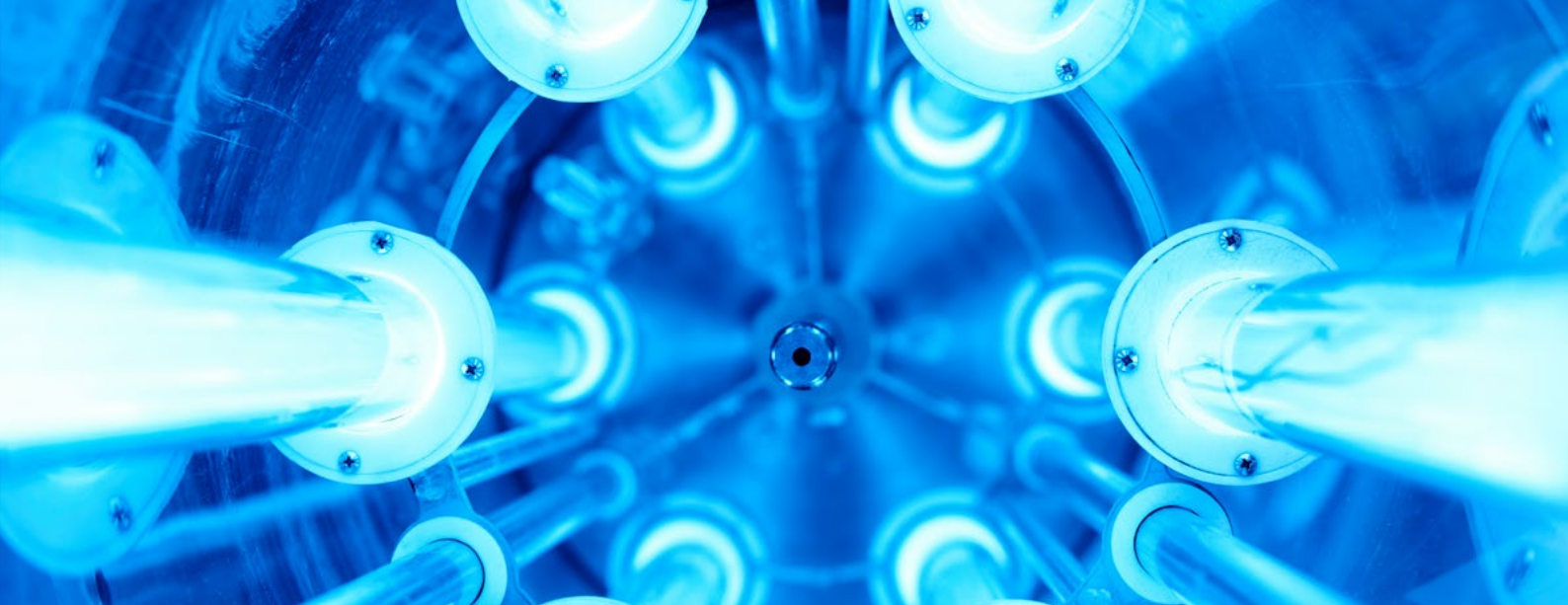
48 pcs.



* Refers to the only LED module

CAUTION

- UV LEDs emit high intensity UV light
- Do not look directly into the UV light during operation
- This can be harmful to your eyes and skin
- Wear protective eyewear to avoid exposure to UV light
- Attach caution labels to your products that contain UV LEDs
- Avoid direct eye and skin exposure to UV light
- Keep out of reach of children and animals



LED Solution for Sterilization – waterproof version

For cut-out 26x111.6 mm / 1.024x4.394 in

Fixing: holes for screws M3
Wall thickness: 1.4-2 mm



VIO275 S IP67

The waterproof version includes a silicone gasket and is IP67 protected. It is specially developed for applications like dishwashers, refrigerators and other humid areas.


Lens material:	Silicone + PA6
Beam angle:	90°
Typ. peak wavelength:	275 nm
t _c :	75 °C / 165 °F
Radiant flux maintenance:	L70 / 11,000 hrs.*
Leads:	FEP
Packaging unit:	48 pcs.



* Refers to the only LED module

CAUTION

- UV LEDs emit high intensity UV light
- Do not look directly into the UV light during operation
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Whenever an electric light goes on around the world, Vossloh-Schwabe is likely to have made a key contribution to ensuring that everything works at the flick of a switch.

Headquartered in Germany, Vossloh-Schwabe is a technology leader within the lighting sector. Top-quality, high-performance products form the basis of the company's success.

Vossloh-Schwabe's extensive product portfolio covers all lighting components: LED systems with matching control gear units and state-of-the-art control systems (Blu2Light and LiCS) as well as electronic and magnetic ballasts and lampholders.

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