

**SAFE & RELIABLE**  
**USE OF UV TECHNOLOGY**

UV DISINFECTION EXPERT

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Daan Hoek | Co-Founder UV Smart

*Beyond Clean UV Disinfection Expert™:*

## SAFE & RELIABLE USE OF UV TECHNOLOGY

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UV light can be generated by lamps, which allow us to use its beneficial properties. Research has proven that UV light is a super-efficient disinfection method. Because exposure to UV light is dangerous, devices based on UV technology must be handled with care. That is why not all types of UV light reach the earth's surface. In this article, we'll discuss methods to use UV based technology reliably.

### **Closed UV systems are reliable**

Closed UV disinfection devices are manufactured for the disinfection of products and small medical instruments. The UV based technology in the box can only be switched on when the valve is fully closed. A sensor must ensure that the light is switched off when the box is opened.<sup>3</sup> In order to maintain valid process, it's important to train healthcare personnel.<sup>3</sup> Material compatibility ensures whether the UV based light is damaging to the disinfected medical equipment and materials in any way.

### **Reliable method for materials**

We know that UV light is reliable for materials because research has been conducted on air treatment systems, finding that plastic filters and pipes are not affected by UV light, even after ten years' exposure.<sup>5</sup> Furthermore, there have been no reports of damage to medical instruments, such as endoscopes.<sup>6</sup> Even damage to sensitive electronics is not expected, which is why NASA uses UV based technology in its clean rooms and disinfection protocols.<sup>8</sup>

### **Devices that detect motion and switch off automatically**

Dated publications on UV technology reliability measures usually refer to the use of 'open' UV methods, which can be installed in a fixed place or moved across a room.<sup>9</sup> However, these devices must only be used in rooms that are not in use - otherwise, a motion sensor must be employed.

UV technology devices can be implemented reliably when used according to protocol.

Have more UV disinfection questions? Contact Daan at: [daan.hoek@uvsmart.nl](mailto:daan.hoek@uvsmart.nl)

*Beyond Clean UV Disinfection Expert™ Biography:*

## DAAN HOEK CO-FOUNDER UV SMART



Daan Hoek is the Co-Founder of UV Smart and very passionate about UV-C light as a disinfecting agent in the medical field. UV Smart is an innovative company based in the Netherlands with an established US office in New York. The UV Smart devices can disinfect medical equipment quickly, efficiently, and consistently by using UV-C light. By refining this ancient technology, UV Smart made it possible to disinfect medical equipment in a rapid and effective way. UV-C light also eliminates the use of chemical disinfectants that are harmful to medical equipment, operators, and our planet, while saving a substantial amount of turnaround time. UV Smart is the front-runner in applying UV-C technology to medical devices. UV Smart is currently active in over 20 countries worldwide.

Daan is also the chairman of the Taskforce UV-C light of the Dutch Normalization Committee. Along with the taskforce, he developed the first European guideline for UV-C disinfection devices in the medical field. He is also in charge of all the clinical (multi-center) studies of UV Smart, three of which are running in the US and in Europe.

If you have any questions regarding UV-C light, feel free to reach out to him!

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