

Virus Disinfection with UV-C Light in Vaccination Center Case study of the UV air purification in Offenbach city hall

Viruses, bacteria and other microorganisms spread through tiny water droplets in the air, so-called aerosols. They can survive there for a long time and are transmitted from host to host. The risk is particularly high in rooms with many people - such as waiting rooms. Often, the situation is aggravated by the fact that these rooms cannot be well ventilated or there is no central ventilation.

UV-C light is energy and very effective against viruses, bacteria and fungi. Especially viruses, such as the SARS-CoV-2 virus and its mutations are easily destroyed by it. They have only a thin lipid (fat) layer. This is easily penetrated by UV-C light and destroys the virus immediately. Elderly and pre-diseased patients belong to the risk group for Corona and need particularly high.

Setting up a vaccination center in a city hall presents special challenges. Logistics, structural conditions and required hygiene standards have to be reconciled. Everyone who is vaccinated there, initially especially elderly and pre-diseased patients, but also the medical staff on site, should be safe from accidentally introduced viruses in the vaccination center. To this end, the usual hygiene regulations are of course observed. Recently, six Soluva Air D systems in the six ventilation systems in the Offenbach vaccination center have been providing additional protection.

For the construction of a vaccination center in the city hall, the city of Offenbach commissioned the company Wagner Haustechnik to build an air disinfection system for which precise specifications were drawn up. The system could not be hung from the ceiling of the city hall but had to be integrated into the existing ventilation system. By installing the Soluva Air D modules, all ventilation systems in the city hall of Offenbach can be efficiently disinfected.

For this purpose, Wagner Haustechnik worked together with the UV experts from Heraeus Noblelight, who calculated the optimal design of the UV disinfection with the help of a calculation tool. Wagner, a specialist in ventilation and air-conditioning systems, chose the Soluva Air D systems because they can be optimally integrated into the air ducts. They are available in four sizes and can thus be precisely adapted to the existing air ducts and the required air volumes."



The renowned Fraunhofer Institute for Building Physics has for the first time confirmed the effectiveness of air disinfection by means of closed UV-C air purification devices under real conditions for a classroom on the basis of an elaborate scientific application test. Heraeus UV-C air purification devices can reduce the virus load in closed rooms by over 99%.

The disinfecting effect of UV-C light has been confirmed in further tests, e.g. with the Hygiene institut biotec or the University Hospital Tübingen.

Advantages of UV-C air purification with Heraeus Soluva equipment:

- ✓ free from chemicals
- ✓ without filter
- ✓ low maintenance requirements
- ✓ without ozone and by-products
- ✓ no uncontrolled escape of UV-C-light
- ✓ no germ resistance formation

