

Case Study

Real-Time Ozone Monitoring Enables Safe Sterilization of Food Processing Environments

Jimco used the S930 ozone monitor to effectively measure ozone levels during and after the sterilization process.



Project

Jimco

Services

Series 930 - Fixed Indoor Air
Quality Monitor

Location

Rudkøbing, Denmark

Measurements

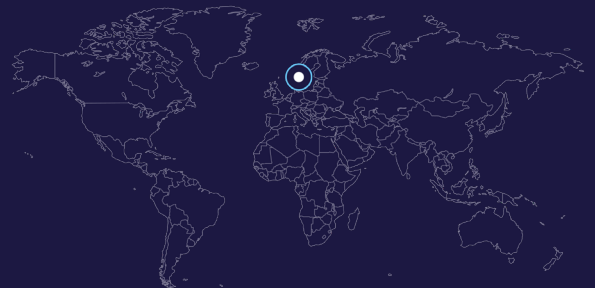
O₃

Date

2019

Sector

Ozone



The customer

Jimco has been manufacturing and supplying air purification and sterilization solutions worldwide since 1993. Their products can be found in factories within the food industry, as well as commercial kitchens, schools and nursing homes. The manufacturer boasts clients such as McDonalds, McCain, and Scandic Hotels.

One of Jimco's latest products, the FLO-D Mini Mark 2 focuses on surface disinfection and has received keen interest from organizations looking to fight the spread of Coronavirus by using ozone sterilization.

In tests, Jimco's ozone sterilization product successfully disinfects the most resistant envelope virus 'MVA', by more than 99.99%.

The Modified Vaccinia virus Ankara (MVA) can survive on surfaces for more than 9 days and was chosen as the test virus because in Europe it represents the official model virus for all enveloped viruses, including members of the virus family coronaviridae (like MERSCoV, SARS-CoV-1 and SARS-CoV-2).

The problem

Many types of environment require regular and thorough disinfection and sterilization. This can be a time-consuming process if done by hand. There is also a risk of human error, resulting in incomplete disinfection. Some environments containing things such as electrical equipment are difficult to clean with traditional methods using water and chemicals. Ozone sterilization is an effective alternative since it can quickly and completely disinfect every surface with low labor input. However, the treatment process does carry some risks. Even low levels of ozone inhaled over time can be detrimental to human health.

Jimco needed a means of letting people know when it was safe to re-enter environments that have recently been through an ozone sterilization process. In addition, the treatment process requires specific levels of ozone to be added to the environment for the sterilization to be effective. Again, Jimco needed a way to monitor when the level of ozone had reached the desired amount.

The solution

Jimco integrates the Aeroqual S930 Ozone Monitor into their FLO-D Mini – Mark 2 ozonator. This gives their equipment the ability to accurately and reliably monitor ozone levels throughout the sterilization process. Aeroqual's ozone monitor is also used to let people know when it is safe to re-enter recently treated environments.

The amount of ozone added to the environment is directly controlled by the S930. The monitor logs data in real-time which informs the documentation of the treatment process. When the amount of ozone has dropped to a safe level, the S930 communicates this to the FLO-D Mini – Mark 2. The machine's interface will then switch from red to green.



“We have tried several other monitors, but the plug-and-play setup of the S930 makes it very easy for us to install and use. Furthermore, the S930 monitor is also a very important part of the product because it gives us the signal to our data log system so that we can log the whole treatment process. This is the customer’s guarantee that the treatment has been done effectively”

Jannik Kjær Hansen
Jimco

Evaluation

Hygienic environments have always been essential in the food processing industry, Demand is growing for increased sanitation across other applications as a result of COVID19.

JIMCO's products, when used in conjunction with Aeroqual's accurate and reliable S930 ozone monitor give people the confidence their environments are thoroughly sanitized and safe to re-enter.