

H₂O₂ Fumigation

Hydrogen peroxide (H₂O₂) is an oxidising agent which, when it comes into contact with micro-organisms, oxidises their cells or spores, thus deactivating them. Vaporised Hydrogen Peroxide (VHP) Fumigation is operated at ambient room temperature and relative humidity, without the need to significantly reduce humidity, which was traditionally required for fumigation bio-decontamination. Hydrogen peroxide fumigation is often referred to as VHP and HPV.

There is now a large body of published scientific research demonstrating that hydrogen peroxide vapour technology is able to inactivate bacteria, viruses and fungi, as well as reduce Healthcare Associated Infections (HAIs), giving you assurance of a 6-log spore reduction.

Not only is H₂O₂ proven to be an effective decontaminator, it is a more rapid and convenient means of fumigation, reducing your equipment downtime, and is significantly less hazardous to health than traditional fumigation methods. Equipment and rooms which are subject to regular health and safety testing and validation, or need regular servicing should be decontaminated appropriately prior to these activities.

Many customers have basic fumigation capabilities on site which are used prior to equipment servicing. However, by using Normec Crowthorne's Equipment Bio-Decontamination Service (EBDS) to perform the fumigation prior to service, you can ensure a full and successful service with minimal disruption. We can also fumigate and service several cabinets at the same

time. Laboratories can still be accessed during H₂O₂ cabinet fumigation as the process is performed under negative pressure – a major advantage over alternative methods. Not only does the EBDS service save you time, it also saves you the capital outlay of buying your own equipment and shutting your laboratory for the service duration.





Safety cabinet fumigation

According to BS EN 12469:2000 and the Advisory Committee on Dangerous Pathogens (ACDP), Safety Cabinets should be fumigated:

- Before any work on the safety cabinet where access to potentially contaminated parts is necessary, including pre filter and main filter changes
- Potentially before undertaking in situ HEPA filter leak integrity testing
- After a spillage where inaccessible surfaces may have become contaminated
- Before maintenance engineers are permitted to work on the equipment

Formaldehyde vs. Hydrogen Peroxide Fumigation

Whilst hydrogen peroxide fumigation has been proven to be a safe and efficient method of fumigation, many users prefer to stick with the 'tried and tested' solution of formaldehyde decontamination for its highly reliable and effective results, its broad antimicrobial efficacy and its log reduction. As formaldehyde requires a lengthy contact time, fumigation is generally run overnight. Our engineer will return to site the next morning to complete the fumigation process, making sure the safety cabinet is fully decontaminated and ready for use, ensuring minimal disruption and downtime of the safety cabinet.

Normec Crowthorne now offer Equipment Bio-Decontamination Service (EBDS) specifically designed to fumigate microbiological safety cabinets, incubators, robotic enclosures and similar laboratory equipment.

- Where there are a number of safety cabinets to service, we perform an overlapping fumigation and service schedule to drastically reduce laboratory downtime.
- Emergency fumigation can be performed.
- Emergency fumigation can also be arranged under a regular schedule contract or ad-hoc dependant on the requirements of your facility.