



## AIR CLEANERS USED AT PRINCESS ALEXANDRA HOSPITAL MICROBIOLOGY LABORATORY

**CAMFIL WERE ASKED TO TAKE READINGS OF THE LEVELS OF AIRBORNE PARTICLES IN THE MICROBIOLOGY LABORATORY FACILITY WHICH WAS LOCATED IN A SATELLITE BUILDING AT PRINCESS ALEXANDRA HOSPITAL – HARLOW.**

Many laboratory facilities in hospitals are situated in remote and detached locations to ensure more effective containment of contamination risk. These locations are often inadequately served by the centralised HVAC system.

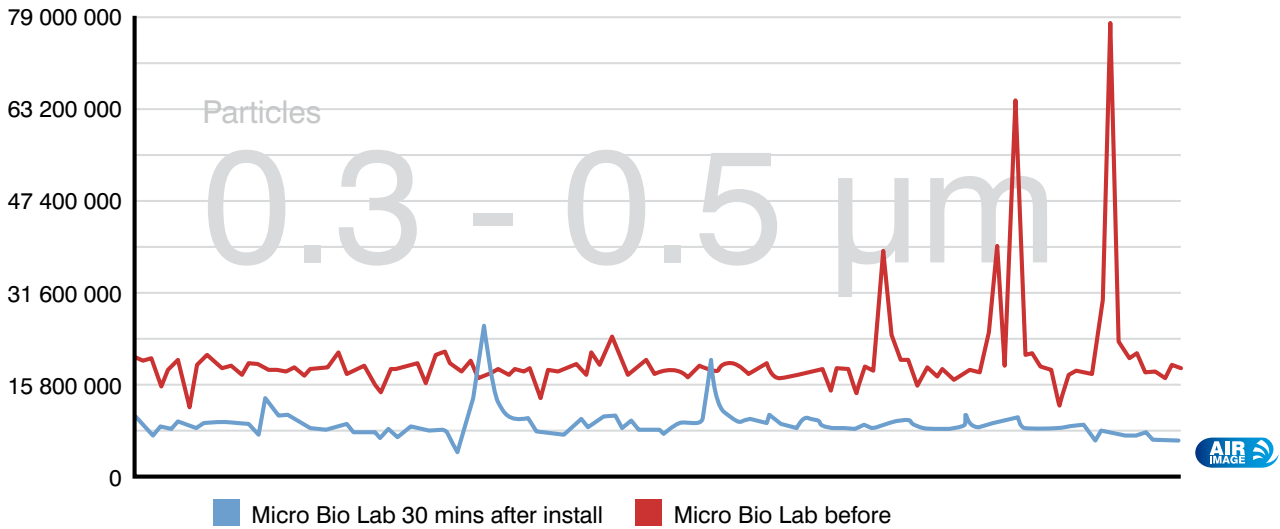
There were concerns that there were contamination risks as hospital staff were being exposed to high levels of airborne particles and aerosols from medical pharma compounds and possible exposure to airborne bio-particles. That could increase risk of transmission of infection.

The study involved taking particle count readings of the initial ambient air in the laboratory and then placing a standalone Camfil air cleaner centrally in the laboratory and taking readings subsequently. The initial ambient air results did show that the concentration levels of airborne particles were higher

than they should be because that the laboratory was being used to mix powdered medical preparations. There were also complaints about the frequent odours from liquid preparations and chemicals being used.



# CAMFIL CASE STUDY



**THIS CHART SHOWS THE CAMFIL AIR CLEANER MAKES A SIGNIFICANT REDUCTION OF PARTICLES IN BUSY LABORATORY WORKING ENVIRONMENT. THE SPIKING EVENTS SHOW ACTIVITY PRODUCING AIRBORNE PARTICLES WHICH ARE GREATLY SUPPRESSED WHEN UNIT IS IN OPERATION.**

A Camfil air cleaner was installed that had HEPA particle filtration and also gas molecular filtration for removal of noxious gases and odours.

After a period of half an hour had elapsed further particle counts were taken that indicated a reduction of over 50% during that period and a continuing downward trend in airborne particles.

Camfil air cleaners are also fitted with gas phase filters when required that are able to purify the air and remove odours and gas phase contaminants.

The air cleaner was left in situ for a trial period so that the reactions of the staff in the laboratory could be registered. There was a positive response with a number of people saying how the condition of the air had been improved and that unpleasant odours had been greatly reduced in concentration and duration.

The trial unit was subsequently purchased by the hospital and is currently in constant use. Confirmation that the gas

phase contaminants were being removed from the air was made by use of a Camfil Citycheck air quality sensing kit.

The Camfil Citycheck IAQ kit confirmed that 39 different commonly experienced gas phase contaminants were not present in the laboratory in any significant concentration.

This kit is useful for checking that indoor background sourced gas contaminants are not present in quantities that are likely to cause staff health problems.

These contaminants can cause feelings of sickness and nausea and if there is a concentrated source it can lead to a building being labelled as having sick building syndrome.

Find out more and see case studies on:

[www.keepthecityout.co.uk](http://www.keepthecityout.co.uk)

[www.camfil.co.uk](http://www.camfil.co.uk)

[www.lowenergyairfilter.co.uk](http://www.lowenergyairfilter.co.uk)



Citycheck IAQ kit sensors can be used to sample common indoor sourced contaminant concentrations that can be a risk to health. The two main types test for are volatile organic compounds (VOC's) and Aldehydes.

The sensors are processed in a laboratory and a fully detailed report is produced that details any hazardous concentrations found and the recommended actions that can be taken.