

Local exhaust Ventilation (LEV) Systems

There are many different processes across a variety of industries which create dust, mist, fumes, vapours and gases. Human exposure to these harmful airborne contaminants is controlled using Local Exhaust Ventilation (LEV) systems.

Our BOHS P601 qualified engineers can undertake a thorough examination of your LEV system, testing to ensure it is working correctly, that it's performance conforms with design & commissioning criteria and HSE's guidance HSG258.

LEV Legislation Explained

In the UK alone, thousands of people each year develop lung diseases as a result of their occupation, through breathing in dust, fumes, or dangerous airborne contaminants in their workplace. Many industries are affected, from medical lab research to woodworking, and everything in between. The affects can be easily avoided if effective control measures are put in place. Installing a LEV system to extract harmful substances from the atmosphere will minimise the risk of exposure to your workers and help safeguard them from harm.





What Is LEV?

In its simplest terms, an LEV system is an extractor fan, which pulls harmful dust or fumes away from its source, minimising exposure to workers. A hood is used to enclose the source of the contaminant, while a fan generates air flow. Meanwhile, air is being transported from the hood through duct work, either into the atmosphere directly, or to a filter which removes harmful particles from the extracted air, and finally the safe air is discharged into the atmosphere. There are many kinds of LEV systems, and the type used will depend on the properties of the airborne contaminant, the work processes involved which generate the contaminant, the work environment, and the needs of the operator working with the sources.

Legal Requirements For LEV Systems

There are several pieces of legislation which apply to employers working with potentially hazardous substances, and who therefore require LEV extraction:

- The Health and Safety at Work etc Act 1974 (HSW Act) sets out the health and safety duties that employers have to themselves, their employees and others who may be affected by their work.
- The Control of Substances Hazardous to Health Regulations 2002 (COSHH) adds specific requirements to the HSW Act, such as employers needing to assess the degree of exposure to hazardous substances and implement adequate control measures.

- The Management of Health and Safety at Work Regulations 1999 (MHSWR) ensures that employers are competent for health and safety purposes, including ensuring control measures are maintained and tested.

The Health and Safety Executive has also issued supplementary guidance on deciding on, designing, commissioning and testing effective LEV:

- Controlling airborne contaminants at work:
A guide to local exhaust ventilation (LEV) – HSG258

Requirements include daily, weekly and monthly in-house checks to ensure the system continues to run properly, regular maintenance, and thorough testing. Despite the regulations, many employers are still unaware that they are legally obliged (under COSHH) to arrange a thorough examination and test of their system annually – as a bare minimum. It may, in fact, be required 6-monthly or quarterly if the application of your LEV system means the system's effectiveness is likely to degrade within that time.

Need Your LEV Tested?

Our engineers are BOHS P601 certified – the official qualification from the Chartered Society for Worker Health Protection in the thorough examination and testing of LEV systems. We can ensure that your LEV system is working to the highest possible standards and continues to protect your staff from hazardous substances.