



## **Dust Extraction Systems**

Wherever solid particulates are handled, processed, stored or are created, as a by-product of a process such as machining or finishing, dust is usually generated. This dust needs to be controlled to prevent risks to health and environmental damage.

In general, there are the 4 primary means of controlling dust. Firstly, preventing the creation of the dust in the first place by using a different process or type of material, containing the dust, suppressing the dust, or the least favored, extracting and collecting the dust for either reprocessing or disposal. The first three approaches should always be given careful consideration as they do offer the most effective ways of solving the dust problem and are often the most economic. Dust extraction should only be considered as a last resort if none of the other methods are feasible.

In many instances, however, none of the first 3 preferred means are either operationally practical or compatible with the specification and/or quality requirements of the final product and the extraction and collection is the only viable solution these systems and are usually referred to as Local Exhaust Ventilation (LEV)



In order to provide a viable solution, the process starts with the recognition that there is a dust problem that needs to be controlled. In order to accurately assess the requirements a site visit by a competent dust control engineer is essential. Once the engineer is on site you should ensure that you give the engineer as much information as possible. Even applications that appear to be identical to others already installed, can require different solutions when all aspects of the application and local conditions are properly considered.



Once the engineer has obtained all the information, they should be able to give you an outline of what they are going to propose as a solution to the dust problem. This should include method of dust capture, type and position of dust collector, method of collection of dust for disposal, and any health and safety issues and installation requirements.

Once all relevant information is available All parties should then cooperate as part of the LEV design process. The supplier will then be able to provide the equipment required to suit the process machinery and material characteristics, ensuring that the LEV is easy to use and does not obstruct operator actions.



Once the system has been installed a competent company should be employed for annual testing, the company must be able to test accurately to the relevant standards, affix appropriate labelling and offer maintenance advice as appropriate.

The complete dust control design, installation and testing service is available from within the SHAPA community of companies. To inspire real confidence at an economic cost throughout the lifetime of an installation, check out the Equipment Finder at <https://www.shapa.co.uk/equipment.php> or alternatively, download one of the many dust control related technical documents which can be found at <https://www.shapa.co.uk/technical.php> alternately you can email your enquiry to direct to SHAPA at [info@shapa.co.uk](mailto:info@shapa.co.uk)