

Frequently asked LEV questions

- **Do I have to fit air-flow indicators to all the hoods in the LEV system?**
- **How do I know that LEV hood air-flow is adequate?**
- **Do I have to fit air-flow indicators now?**
- **Are air-flow indicators the best way to check air-flow for all types of hood?**
- **What sort of air-flow indicator should be fitted?**
- **Wouldn't air-flow 'tell-tales' be good enough?**
- **Do examiners have to label LEV systems they test?**
- **Do examiners have to label all LEV hoods tested?**
- **Do examiners have to put red labels on all LEV hoods that have failed?**
- **Is there an alternative to labels?**

Do I have to fit air-flow indicators to all the hoods in the LEV system?

There isn't a specific legal requirement to have air-flow indicators or similar fitted to an extraction. But as an employer you do by law have to make sure your LEV system keeps working properly. One of main reasons why LEV doesn't do what it should is because the airflow falls for some reason (eg build-up of material, damage to ducting etc), becomes inadequate and effective control is lost.

One simple way of checking this is the use of air-flow indicators (or a static pressure gauge) at the hood and this will provide you reassurance that the flow-rate is maintained, that the protection for employees is there and that you're not wasting money. There are other ways of checking air-flow such as using anemometer, or a dust-lamp or smoke tracer (with the work process running). However, an air flow indicator (or static pressure gauge) is currently the only method that will show the operator or supervisor immediately if there's a problem, and HSE's LEV guidance [HSG 258^{\[1\]}](#) recommends these are fitted.

How do I know that LEV hood air-flow is adequate?

It is not possible to gauge effectively the speed (velocity) of the air entering an LEV hood 'by hand'. A suitable air-flow indicator should make it easy to see whether air-flow is adequate.

Do I have to fit air-flow indicators now?

It is not a specific legal requirement, but you should have some way of checking that adequate air-flow is being maintained. If you decide to get air-flow indicators, you should identify which LEV systems or parts of systems need to be addressed first.

Factors to consider in your decision include:

- The risk of exposure
- Whether the operator has to set the hood air-flow
- Whether other checks are practical
- The cost

New LEV systems will soon be fitted with air-flow indicators as standard.

Are air-flow indicators the best way to check air-flow for all types of hood?

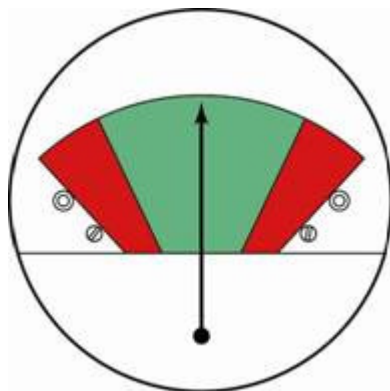
Not for all LEV. For instance, a manometer, measuring static pressure across the filter unit, can provide sufficient indication, for a simple LEV system consisting of a fan, an air-cleaner (e.g. filter), a duct and a hood.

What sort of air-flow indicator should be fitted?

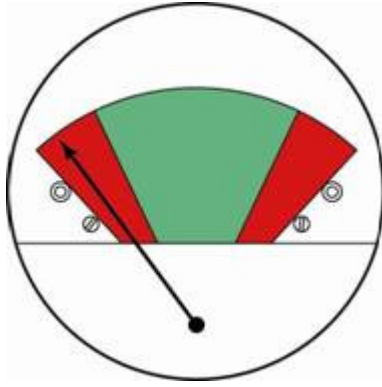
It depends on the level of potential health risks. If risk is low, a simple indicator will be appropriate. More hazardous substances and circumstances may require more sophisticated, and potentially more costly, indicators e.g. with an alarm if air-flow drops too low.

Whatever indicator is chosen, it will need to show clearly whether the air-flow is adequate.

Example of a simple air-flow indicator display



Green - Adequate air-flow



Red - Inadequate air-flow

Wouldn't air-flow 'tell-tales' be good enough?

'Tell-tales' such as pieces of paper or plastic hung to bend in the LEV hood air-flow, do not provide an effective indication of air-flow and they are delicate and easily damaged.

In all but very simple systems, extracting low hazard substances, they will not be effective, adequate or suitable.

Do examiners have to label LEV systems they test?

No - there is no specific legal requirement on employers or examiners to label LEV.

The law is that the employer must maintain LEV system performance and should also arrange a thorough examination and test at least every 14 months.

The employer needs to know whether or not an examination has been done or when it's due, and so do supervisors and operators. Critically, they also need to know when a hood (or LEV system) has failed. Attaching labels is an effective way of easily providing this information.

Do examiners have to label all LEV hoods tested?

HSE guidance recommends examiners label each hood with a test record. Alternatively, the test record label could alternatively be placed nearby, for instance, close to the system on-off switch. It should be clearly visible to the supervisor and operators.

Example of an LEV test record label

| | |
|----------------|--------------------------------|
| Test date..... | LEV test record |
| Next test..... | |
| Examiner..... | |

Do examiners have to put red labels on all LEV hoods that have failed?

HSE guidance recommends that a red 'Failed' should be put on any hoods (or system) that has failed, to warn supervisors and operators directly and explicitly. This could be done by the examiner with agreement from the employer (client). Or, the label could be issued to the employer's responsible person.

With the label should come a short 'emergency' written report containing a clear description of what's wrong and a list of practical remedial actions.

Example of a "Failed" label

| | |
|---------------|-----------------------|
| Examiner..... | LEV failed |
|---------------|-----------------------|

Once the employer has had the LEV hood or system repaired, a competent person needs to check that it is effective and adequately controls exposure. The 'Failed' label can then be removed.

Is there an alternative to labels?

Labels are recommended as a means of providing clear and simple indication that a hood/system is not functioning satisfactorily. Other means can be used, as long as it is clear to the employer and to the operators that the equipment requires rapid attention.