



Many industrial work processes create harmful airborne pollutants (ABP) that can cause occupational health related diseases.

Local Exhaust Ventilation (LEV) system is an engineering control system that captures dusts, vapours, and fumes at their source of generation and transports them away from the worker's breathing zone. This prevents workers from inhaling these substances and reduces contamination of the general workplace air.

Capturing ABPs at the source of generation has proven to be a more effective method of lowering ABP levels than simple dilution with general ventilation. However, LEV and general ventilation systems are interdependent engineering controls. If a plant's contaminant levels are high, the first step of

implementing engineering control will be to evaluate and/or design the performance of the LEV system. This will be done to optimise the performance of the LEV system thereby lowering the dilution rate required by the general ventilation system.

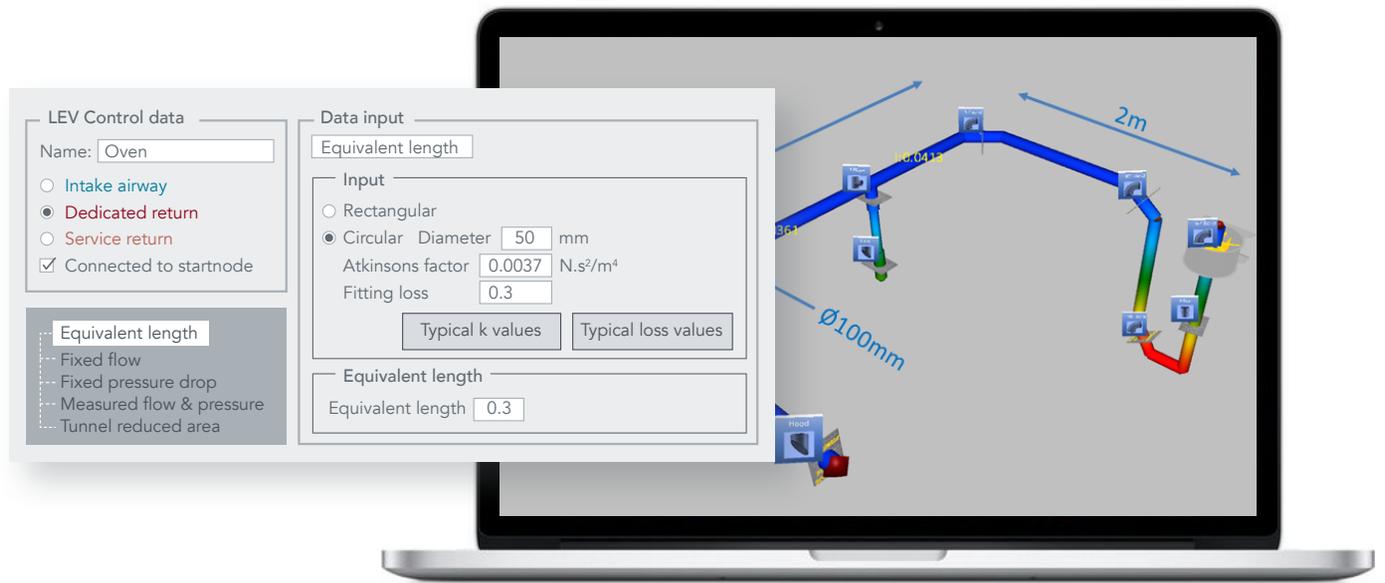
The most important part of any LEV system is the design. Quite simply, if the design isn't correct, the system will not work effectively. VUMA3D-lev is a evaluation and/or design tool for LEV systems ensuring correct volume flows, distribution, carry velocity etc. for LEV duct system network. The software is a valuable asset in determining the impact on the LEV system's performance if geometry or elements are altered. VUMA3D-lev is a LEV network simulator based on the flagship VUMA3D-network simulator used for mine ventilation, cooling, and environmental control which has been continuously developed over many years.

**VUMA3D-LEV ALLOWS YOU TO:**

- Evaluate existing LEV systems performance
- Predict the impact on LEV system performance due to system alterations
- Model/design new LEV designs

**VUMA3D-LEV REAL TIME MONITORING**

VUMA3D-lev can be coupled with a few strategic sensors and this results in a real-time monitoring of the LEV system to ensure that it is operating according to the design at any given moment. Alarms will be raised if the design criteria are not met.



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