

Car park ventilation

Enclosed or underground car parks normally require ventilation systems to assist firefighting operations. These systems generally also prevent the build-up of carbon monoxide during normal day to day use of the car park.

This presentation covers:

- An explanation of the basic legislative requirements and how these are achieved using impulse ventilation
- Application of impulse ventilation, both for carbon monoxide and for smoke clearance for smoke control
- The advantages of impulse ventilation over traditional ducted extract systems
- Use of CFD
- Control systems used: carbon monoxide and heat detection systems
- How impulse ventilation can be used to control smoke movement, allowing smoke control to be used, as part of a fire strategy, to compensate for the relaxation of other legislative requirements, e.g. travel distances
- A case history of a particular project where travel distances were relaxed using impulse ventilation designed for smoke control
- An explanation of how this project was validated using CFD and live fire tests