

Light + Air
Western Europe



Facilities Manager's guide to

Service and maintenance
of natural smoke control
and ventilation systems



**Kingspan**
Light+Air

Why do we need smoke control and ventilation systems?

Smoke control and ventilation systems are a vital part of any building's operation and must be kept in good working order throughout their lifetime. This quick guide for Facilities Managers gives an overview of the maintenance requirements for these systems, and how Kingspan Light + Air can support you to keep them operating effectively.



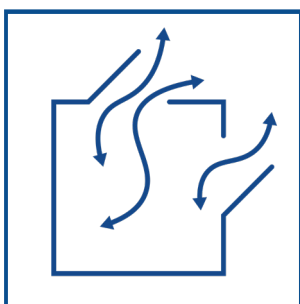
Smoke control systems

Building operators have a duty to ensure the safety of the people who use their facilities, including implementing effective fire safety strategies. Often a mandatory part of these plans, smoke control systems are designed to exhaust the potentially deadly smoke, heat and toxic fumes created by burning building contents to maintain smoke-free escape and rescue zones. Whilst occupant safety is the primary purpose of these systems, they also help to limit smoke and heat damage to the property and its contents. Additionally, they keep firefighters safe and facilitate better access to the fire to speed up extinguishing the fire itself.

Learn more about Smoke Control in our guide



[View online](#)



Natural ventilation

Regularly replacing stale internal air with fresh air from outside is crucial for occupant health and wellbeing, as well as preserving building health and value. Many natural smoke control systems can be used to provide daily ventilation, helping to maintain comfortable conditions and limiting the need for mechanical air control systems, reducing the building's energy demand and operational cost. Some systems can also offer natural daylighting, further improving the wellbeing and health of occupiers and reducing artificial light demand.

Learn more about Ventilation in our guide



[View online](#)

The importance of maintenance

Smoke control and ventilation systems must be regularly checked, tested and maintained by a competent, skilled person to ensure they continue to deliver the performance necessary to protect the building and its occupants, both day-to-day and crucially in the event of a fire.

Regular service + maintenance helps to:



Ensure compliance

Regular checks are a legal requirement in many regions, especially for systems offering smoke control. They can also help to ensure ongoing compliance with local, regional or sector specific requirements which are liable to change or can come into force if the building-use changes.



Protect occupants

Lack of maintenance can lead to underperformance or malfunction which can be detrimental to occupant health and safety. Good levels of ventilation are necessary to remove harmful pollutants and maintain indoor air quality and thermal comfort. Meanwhile, in a fire, these systems play a vital role reducing the serious risk from smoke inhalation.



Keep energy-use low

Underperforming natural ventilation systems can also cause overheating and poor indoor air quality, resulting in workforce complaints, which can result in more reliance on mechanical air-cooling methods, such as air conditioning units. This can increase the energy use of the facility, raising operation costs and growing the building's carbon footprint.



Protect your assets

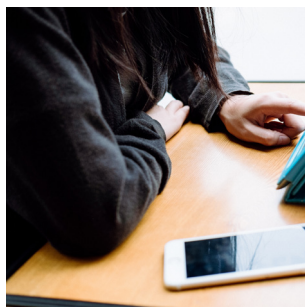
Regular servicing can extend the lifespan of components, minimising the risk of system failure and the need for costly replacements. It also offers the opportunity to upgrade the system considering any advancements in the technologies used and helps to ensure that the system is always compliant with any insurance requirements.

How to maintain smoke control + ventilation systems

How and when a system specifically needs to be maintained will depend on several factors, including:

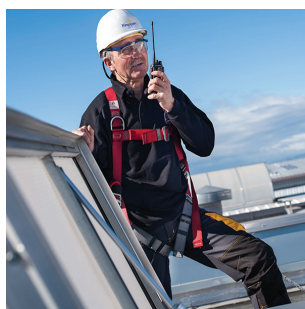
- its configuration and what it is being used for;
- the type of building it is installed on and its occupancy;
- where the building is located;
- the legislation/requirements it must meet; and,
- how frequently the system is used.

However, there are some basic maintenance steps all facilities managers should take.



Predictive

Use digital system management tools to detect signs of deterioration, anomalies or underperformance. Carry out daily checks of control panels to ensure all systems are functioning normally.



Preventive

Schedule regular checks and cleaning of moving parts and control systems. Put in place a clear service + maintenance schedule (at least annually). This should include a full system function and performance test.



Reactive

Quickly resolve any unexpected damage to, or failure of, the system. Where the performance of a system may be affected, however temporarily, steps should be taken to mitigate the reduced safety level, ensuring the continued safety of the occupants.

Knowing what's required

Smoke control is subject to strict regulation, and many regions also have laws around ventilation and indoor air quality. The requirements for these can vary between countries, areas and even cities. Specific building types will also have different requirements in relation to fire safety and air quality. What's more, maintenance frequency may need to increase as your building and system ages, or your insurance policy may also stipulate requirements. Some types of building, with particularly dirty or aggressive environments may also need more frequent maintenance.

All these factors may vary from the standard maintenance requirements set out by the manufacturer, so it is important to always take these factors into consideration. A competent service and maintenance provider will be able to help you navigate these complexities to ensure your system is fully compliant.

Why do I need a service + maintenance contract?

Whilst the day-to-day cleaning, monitoring and checks of the system can be done by the building maintenance staff, it is vital that any service, maintenance, and repairs are completed by specialist professionals who are competent in carrying out this work and understand the system installed. This is often a legal requirement but also vital to ensuring that your maintenance plan is appropriate for your building and requirements.

Competent maintenance providers will always:

- understand the complexities of a system, tailoring their approach to fit your building and your system;
- look at the system holistically— checking every component, from the control panel to the ventilators;
- conduct thorough end-to-end testing to ensure the system achieves your performance requirements, including checking that any back up power systems are active;
- replace any elements that have degraded or need upgrading to ensure the system performs as required;
- check the system is compliant with any applicable laws or standards.



How can Kingspan Light + Air help?

Kingspan Light + Air has been a trusted partner for thousands of commercial and industrial properties all over the world for over 30 years. From planned, preventative maintenance to rapid response repairs, we offer comprehensive service and maintenance packages for our smoke control and natural ventilation systems—giving you complete peace of mind that your systems will deliver the performance you need to keep your buildings operating at their best.

Bespoke preventative maintenance

Our highly skilled and experienced engineering team will assess your service and maintenance needs and provide a tailored service and maintenance programme that will guarantee your building will remain compliant, safe, and comfortable for decades to come.

Unrivalled system knowledge

We are the experts in our own smoke safety and climate control systems. We have undertaken thousands of projects all over the world and have accumulated decades of knowledge of how our systems should perform in all kinds of situations and locations— and what to do when they don't!

Informed, up-to-date advice

As a manufacturer of these systems, we strive to keep up to date with the latest technologies and legislation, as well as global trends in fire safety and ventilation, helping you to ensure compliance and maximise the systems' performance.

Remote System Monitoring

With Kingspan Light + Air, you could enjoy peace of mind and enhanced visibility about the status of your system at all times. When you sign up for a service contract with us, our SmartServ Pro remote monitoring system can be retrofitted to your existing smoke control system to enable remote system management and maintenance, reducing call-outs and saving you money and time.

Connected resources

Offering everything from design services to installation support to maintenance contracts means we have the resources to find the right solution for your building—whether that's sourcing parts or upgrading your system to meet any new requirements.

Flexible scheduling

We understand that downtime can be a costly requirement for any building and that these essential works should not compromise occupant safety or operations. Our teams will liaise closely with you to plan service programmes that cause absolute minimum disruption.

24/7 emergency call out service

If something goes wrong, our expert engineers can be on-site in as little as four hours, bringing a wealth of experience and a comprehensive range of spare parts that will enable them to quickly identify the problem and deliver a quality solution.

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