



24. Fire - Extinguishing Equipment - Smoke Vents & AOVs Functionality Test

Category:	Fire
Subcategory:	Extinguishing Equipment
Frequency:	6 Monthly
Status:	Statutory
Type:	Competent Person
Priority:	Core
Commonality:	Occasional

Note: This document provides guidance to support compliance but is not a substitute for professional advice.

Why This Task Matters

Your six-monthly functionality testing of smoke vents and automatic opening vents ensures that escape routes remain clear during fire emergencies. By conducting these interim checks in multi-storey schools and colleges, you maintain confidence that these systems will operate correctly to prevent smoke accumulation. Your systematic testing of these critical smoke control systems demonstrates your essential role in maintaining breathable escape pathways.

Task Summary

Statutory: Six-monthly user or competent person functionality tests confirm that smoke vents and automatic opening vents activate and close correctly. This intermediate testing involves checking control systems, testing deployment mechanisms, and verifying operation. The test includes checking electrical systems, testing manual controls, and confirming full operation of vents. These systems prevent escape routes from becoming smoke-logged, a crucial safeguard in large schools or colleges with crowded stairwells. Regular interim checks give assurance that annual contractor servicing remains effective. The testing includes documenting system operation, checking for damage or obstructions, and ensuring all components function correctly. Evidence produced includes test records in the fire logbook documenting all checks performed and results, annotated photos showing vent

operation and positions, and any issues identified with recommended actions.

Relevant Legislation & Guidance

- **Regulatory Reform (Fire Safety) Order 2005:** Requires regular testing of smoke control systems
- **Fire Safety: Approved Document B (Buildings other than dwellinghouses):** Provides guidance on smoke vent testing
- **British Standard BS 7346: Components for smoke and heat control systems:** Specifies requirements for smoke vent testing and maintenance
- **British Standard BS 9999: Fire safety in the design, management and use of buildings - Code of practice:** Includes guidance on routine testing procedures
- **Building Regulations 2010:** Require smoke control systems to be maintained in working order

Typical Frequency

Smoke vents and AOVs must be functionally tested every six months, with these intermediate checks continuing throughout the academic year. In educational settings with smoke control systems, six-monthly testing is essential for maintaining system reliability. The frequency cannot be reduced as it is a statutory requirement for ensuring smoke control systems remain operational.

Applicability

This task applies to educational establishments that have smoke vents or AOVs installed, which is occasional as these systems are typically found in multi-storey or atrium buildings. It is a core statutory task where these systems are present, essential for maintaining clear escape routes. The task applies to schools and colleges with smoke control systems in stairwells, corridors, or large spaces.

Responsible Persons

- **Task Type:** Competent Person
- **In-House Requirements:** This task can be completed by trained facilities staff or fire safety officers who have received appropriate training in smoke control system testing. Staff should be familiar with the system's operation and testing procedures.
- **Permit to Work:** May require access to roof areas and coordination with building users.
- **Delivery Model:** Normally completed in-house by trained staff to ensure regular testing and familiarity with the system.

Key Considerations

- **Timing considerations:** Schedule during term time to maintain continuous system reliability
- **Cost implications:** Minimal cost if completed in-house, though may require occasional staff training
- **Resource requirements:** Access to control systems and vent locations
- **Potential disruption:** May require temporary access restrictions during testing
- **Risk assessment requirements:** Test results should inform the fire risk assessment

Task Instructions

Prerequisites & Safety

- Ensure tester is familiar with the smoke control system and testing procedures
- Confirm safe access to roof areas and vent locations
- Check that testing can be conducted without endangering building occupants
- Inform relevant staff about potential vent activation

Tools & Materials

- System documentation and test procedures
- Access keys and security codes for control systems
- Test equipment for verifying operation
- Logbook for recording test results
- Camera for documenting vent operation

Method (Step-by-Step)

Phase A: Pre-Test Preparation

1. Review previous test results and any outstanding issues
2. Check system status indicators and control panels
3. Confirm testing schedule and safety procedures
4. Prepare test documentation forms

Phase B: System Status Check

1. Verify control system displays normal status
2. Check electrical connections and power supplies
3. Inspect visible components for damage or obstructions

4. Confirm integration with fire alarm systems
5. Test system monitoring and fault indicators

Phase C: Functional Testing

1. Test manual activation controls
2. Verify automatic activation from fire alarm signals
3. Check vent opening and closing mechanisms
4. Test control system status indicators
5. Confirm full operation and weather protection

Phase D: Documentation

1. Record test date, time, and staff conducting test
2. Document system operation and response times
3. Photograph vent operation and positions
4. Note any issues or unusual observations
5. Sign and date the logbook entry

Measurements & Acceptance Criteria

- Control systems must display normal status
- Vent operation must occur within design time limits
- Full opening and closing must be achieved
- System must reset correctly after testing

If Results Fail

Follow instructions on the Compliance Pod task completion form to record remedial/follow up actions and generate Reactive Task Tickets as required. Immediately implement alternative smoke control measures. Escalate issues to facilities management and arrange urgent contractor attention. Monitor affected areas closely until systems are restored.

Reinstatement & Housekeeping

Reset the system to normal operation and remove any temporary barriers. Ensure control systems show correct status.

Completion Checks

Verify that the logbook entry is complete with all required details. Confirm that the system returned to normal operation after testing. Ensure photographic evidence shows proper operation.

Record-Keeping & Evidence

- **Upload Process:** Upload any required statutory or supporting evidence to the corresponding task form in Compliance Pod.
- **Statutory Evidence:** Logbook test record and annotated photos must be retained for at least 3 years.
- **Supporting/Good Practice Evidence:** Detailed test observations and photographic records support audit readiness.

Common Pitfalls & Best Practice Tips

- **Common mistakes to avoid:** Not testing all operation modes, missing control system faults, or failing to document test results with photographs
- **Best practices for efficient completion:** Maintain consistent testing schedules, keep detailed records of previous tests, and train multiple staff members
- **Pro tips for educational settings:** Coordinate tests during quiet periods, use testing as an opportunity to review system familiarity, and maintain clear test schedules for staff
- **Warning signs that indicate problems:** Slow operation times, incomplete movement, or frequent control faults

Quick Reference Checklist

- Previous test results and system status reviewed
- Control systems and indicators checked
- System status verified before testing
- Functional tests conducted safely
- Vent operation and positions observed
- System reset to normal operation
- Test results documented with photos
- Evidence uploaded to Compliance Pod

Grouped Tasks

Grouping is feasible; align with related tasks of the same frequency and contractor visit.

Related Tasks

- Fire - Extinguishing Equipment - Sprinkler Systems Functional Test
- Fire - Extinguishing Equipment - Fire Shutters & Curtains Functional Test

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