



Fire Damper Testing & Inspection Service

In accordance with BS9999:2008 & HTM 03-01 Guidelines

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Technical Bulletin 6: 2015

Fire Damper Testing & Inspection

What are Fire Dampers?

The British Standard 9999:2008 'Code of Practice for Fire Safety in the Design, Management & Use of Buildings' defines a Fire Damper as a: ***"Mechanical device that is operated automatically or manually and is designed to prevent the passage of fire and, together with its frame, is capable of meeting the fire resistance criterion for integrity for a stated period of time"***.

The installation of fire dampers at the design stage of a ventilation system is a fundamental and essential aspect of future safety requirements in commercial and other work settings.

Fire dampers are installed where ductwork (heating, ventilation, and air conditioning) passes through fire compartment walls and floors. It is critical to stop fire spreading through the ductwork and to plug the gap in the fire defences.

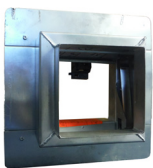
There are numerous types of damper and associated installation frames available on the market. Equally numerous are the wide variety of wall and floor structures that ducts and dampers need to penetrate.

Add to this the variations in the fire stopping devices available on the market and it can be appreciated why many building projects fail to install dampers appropriate to any recognisable tested method.

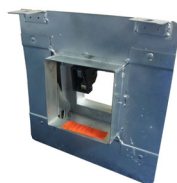
Dampers are typically held open by a 'fusible link'. In the event of a rise in temperature, the fire damper closes. Basically the fusible link melts at temperatures higher than a 72°C, this then allows springs to close the damper blades and thus seal the ductwork stopping the spread of the fire.

There are regulations that specifically relate to how fire dampers should be maintained and tested between one and two years, depending on whether the building is a public building and/or in use 24/7.

Example Fire Damper Components



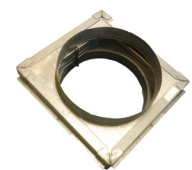
Curtain Fire Damper



Curtain Fire Damper + Fusible Link Cassette



Single Blade Fire Damper + Reset Handle



Fusible Link Type

Fire Safety Legislation Compliance

Fire safety law changed in October 2006 with the introduction of the Regulatory Reform (Fire Safety) Order 2005. It is now the employer's responsibility to maintain their fire safety systems.

If a fire breaks out and gets into your ventilation or heating system are you sure your fire dampers will work correctly?

In making reference to a 'code of practice', the Health & Safety Executive (HSE), note that it is not itself 'the law' and, that 'unless stated, following the guidance is not compulsory'. You are therefore free to take other action. However, if you do follow the guidance 'you will normally be doing enough to comply with the law'.

Fire Damper Testing & Inspection

Fire dampers play a crucial role in a building's fire safety system. The difference between a well maintained, working fire damper and an ill maintained partially working fire damper can be the difference between life and death in the case of a fire. With the enactment of the Regulatory Reform (Fire Safety) Order 2005, it is now the employer's responsibility to maintain their fire safety systems.

Fire dampers are open most, if not all, of the time, so it is crucial to make sure they are fully functioning such that they will shut effectively when required. Effective fire dampers work by providing a barrier beyond which the fire cannot pass. Regular fire damper testing, cleaning and maintenance is essential as a legal requirement and as a critical part of building fire safety management.

Dirt, dust and other contaminants can build up over time on the operational parts of the damper when in its open position. This can prevent a damper from working correctly. These inhibitors must be removed and the fire damper tested to ensure full functionality in the event of a fire.

British Standard 9999:2008 covers routine inspection and maintenance of ventilation and air conditioning ductwork and states that:

"... all fire dampers to be tested by a competent person on completion of the installation and at regular intervals not exceeding 2 years. Spring-operated fire dampers should be tested annually and fire dampers situated in dust-laden and similar atmospheres should be tested much more frequently, at periods suited to the degree of pollution"

The schedule for testing and maintenance should therefore be at a maximum interval of 12 months for spring operated fire dampers or at least every 2 years for other types.

CDM Regulations 2007, enforced by the Health & Safety Executive, focus on managing risk and the health and safety of those who build, use, maintain and demolish a building. Following deaths relating to a fire, a court will want to know how every fire protection system was selected; the basis for selection of the installer, whether adequate time was provided for its installation, and whether there was adequate liaison between the different parties to ensure it was installed correctly.

CDM – Construction, Design and Management

Our Fire Damper Testing Process

1. Locate and actuate all fire dampers in the facility, removing and resetting the fusible link where appropriate to verify that the damper fully closes.
2. Mark the location of the fire dampers and its corresponding asset number (if applicable) on the facilities existing drawings. The damper number will coincide with the number on the identification sticker that our technicians will affix to the ceiling, to note the location.
3. Manually activate electric damper and/or pneumatic dampers to ensure the actuator verify full closure of the unit. All fire panels' controls or panels are only maintained by specialist contractors.
4. If the client supplies us with a set of premises drawings, we can log and record the location of the tested fire dampers.

Fire Damper Tests in Hospitals

There are specific requirements to adhere to HTM03-01 regulations within hospitals:

Heating and ventilation systems Health Technical Memorandum 03-01: Specialised ventilation for healthcare premises Part B: Operational management and performance verification – gives the following guidance:

- 1.31 Regular tests, at intervals agreed with the local fire prevention officer, will need to be carried out in order to demonstrate the continuing efficiency of the fire detection and containment systems. These may be in addition to the inspections detailed above. Records of these tests should be kept.
- 4.13 All fire dampers should be tested as part of the annual verification.

Reporting

At the conclusion of a fire damper test Jasun Envirocare provides the client with a detailed report that includes:

- Photographic evidence
- An inventory of all dampers tested, including location and damper number. Inspection results and, if the damper failed to operate, detailed explanation and suggested corrective action taken and/or required

Our Fire Damper report can be presented to insurers and fire authorities as detailed proof of compliance.

What makes us special...

Our in-house expertise puts us at the forefront of innovation in the commercial air hygiene and water treatment industry. We provide a one-stop-shop for filter supply, distribution and installation to meet all commercial air hygiene and water treatment needs.

As well as providing Fire Damper Testing & Inspection services, we deliver clean air where it matters.

We provide air filters, clean ductwork, monitor indoor air quality and validate Clean Rooms.

We manage water hygiene by monitoring, cleaning and refurbishment of commercial water systems.

We have a proven track record in providing fast turn-around, from order to delivery.

Our full range of filter products, including custom sizing and pricing, can be purchased online at: www.jfilters.com

We manufacture and supply filter products that meet International Organization for Standardization (ISO) and European (Eurovent) requirements, proving that our air filters deliver on promised performance.

We provide a customer care and advice service that is rapid in its response and effective in meeting the challenge.

Our Accreditation

Our determination to be at the forefront of our industry means that we seek validation of our working practices and quality standards from all relevant accreditation bodies and agencies.

We aim to provide our customers with the peace of mind that they are complying with all statutory regulations in: protecting the environment; caring for the health and safety of employees and the communities in which we live.



We are accredited by BSI to ISO 9001, ISO 14001 and to OHSAS 18001.

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