

**HELPING YOU ACHIEVE
THE RIGHT RESULTS
IN PROTECTING
YOUR BUILDING**



Fire Security
(Sprinkler Installations) Ltd.

DECADES OF EXPERIENCE AND SUPERIOR CUSTOMER SERVICE

Introducing Fire Security

Fire Security (Sprinkler Installations Ltd), established in 1972, has built an enviable reputation in the field of both water and foam-based fire protection systems. Fire Security specialises in the design, installation, servicing and maintenance of active fire protection systems. Decades of experience designing high-quality systems with market-leading installation times and superior customer service, makes Fire Security one of the UK's foremost companies in the active fire protection industry. Our drive and determination to offer the best possible Fire Protection solution with the best service on time is what makes Fire Security stand out from the competition. Being one of the highest achievers in the industry having LPCB 1048-1 Level 4 Approval, with complete ISO9001 quality assurance.

The company is moving forward with the implementation in 2016 of our five-year business plan. We are very excited about what we can offer our existing and new customers, showing a positive impact for the future.

WHY FIRE SECURITY?

Fire Security's expert knowledge means we are able to identify and react to a vast variety of applications and performance issues. Using our past to guarantee our future, the continually changing demands of the Fire Protection market shapes our Company's ongoing development. We at Fire Security are also able to deliver bespoke fire protection systems and applications that specifically cater for each individual customer's unique requirements.

Our vast knowledge and real world experiences have resulted in Fire Security being an industry leader. Committed to the future of the company, its employees and our customers, Fire Security has invested heavily to ensure our position as a market leader. To internally support development, each one of our experienced departments has its own autonomous team creating unequalled customer experience across the company, with a single point of contact. This has also enabled Fire Security to understand and communicate with customers on a more personal level, creating a better working relationship where customers can rest assured they are getting the exact industry leading product and service they need.



WHAT FIRE SECURITY OFFER

OPERATIONS

Operating from its base in Haverhill, Suffolk, Fire Security employs an experienced team comprising Project Managers, Project Engineers and Design Engineers, together with the company's own site supervisors, installers and maintenance engineers offering a complete fire protection service for our customers.

DESIGN

Using the latest 2D & 3D CAD software, our design engineers will prepare detailed layout drawings complete with full hydraulic calculations. Careful coordination ensures the system is neither obstructed by, nor obstructing other services such as lighting and ventilation ducting. Drawings and calculations fully comply with relevant design standards and are forwarded to both the customer and the authorities having jurisdiction, for their approval.

SERVICE AND MAINTENANCE

The regular and routine maintenance of systems ensuring continued conformance with the insurance company and authority's requirements is equally as important as the high standards required at both the design and installation stages of the project. Fire Security provides a comprehensive maintenance and inspection service for all types of sprinkler and water spray systems – not just those installed by us.

ESTIMATING

Our estimating team is on hand to work with the customer and any authorities having jurisdiction, to produce a fire protection scheme that matches the client's requirements and meets all necessary regulations. Accompanying the quotation is a comprehensive specification produced for the customer, relevant insurers and authorities.

INSTALLATION

Our engineers have gained a reputation for fast, efficient and thorough workmanship and have an appreciation of the need to coordinate their activities closely with the customer and other site activities. As many installations are undertaken within occupied premises our customers often require their business activities to continue seamlessly during installation. Fire Security's careful project planning can facilitate these demands.

COMMISSIONING

Upon completion of new systems, the customer's staff are instructed on how to carry out simple weekly test routines. Our service department can provide experienced service engineers for more complex operations.



SPRINKLER FACTS

Automatic sprinkler systems are used more than any other fixed fire protection system and over 40 million sprinklers are fitted worldwide each year. Sprinkler systems have been proven in use for well over 100 years. Possibly the oldest in Britain was fitted in 1812 at the Theatre Royal Drury Lane and an updated form is still in use today.

Losses from fires in buildings protected with sprinklers are estimated to be one-tenth of those in unprotected buildings.

Accidental discharge of water from all causes is 1 in 500,000 (per year of service)

Source: LPC

The quantity of water used to fight a fire is approx. 0.02% to 17% of what would be used if sprinklers were not installed

Source: Bureau Veritas

Accidental discharge of water due to manufacturing is 1 in 14,000,000 (per year of service)

Source: FM & LPC Statistics

Although there is no general policy insurance companies may give discounts for protected properties

Source: Bureau Veritas

60% of fires were controlled by the spray from no more than 4 sprinklers

Source: European statistics over 10-year period

99% of fires were controlled by sprinklers alone

Source: European statistics over 10-year period

THE BENEFITS OF FIRE SPRINKLERS

In buildings fully protected by sprinklers:

Social Benefits



Reduce risk to firefighter lives



Prevent job losses



Enhance safety at work

Economic Benefits



Lower insurance premiums



Ensure business continuity and prevent impact to supply chains



Allow flexible building design

Environmental Benefits



Minimise impact fires have on our ecosystem



Put out fires using minimum amount of water



Reduce overall CO₂ emissions from fires

WHAT OUR CUSTOMERS HAVE TO SAY

Here is what some of our customers have to say about Fire Security:

We chose Fire Security because they were a local company who were able to give us a total solution. They were prompt, efficient, always helpful and complied with our company safety rules at all times. Their workmanship was of excellent quality and we were pleased with the completed installation - and they were within budget.

Ransomes Jacobsen Ltd

We chose Fire Security because they could meet our timescales, presented a very descriptive and open tender, were competitive in their pricing and could provide the maintenance cover required.

The Dental Directory Ltd

In Fire Security we found a company that more than meets our requirements. Their expertise in design and installation and the way they deal with our company insurers enabled us to endure the minimum of fuss. The fact that they are a local company is an added bonus.

Bespak

I regretted not using Fire Security System sooner. We have now worked with them for many years and employed them time and again to do projects for us. They also carry out servicing and maintenance of our sprinkler systems.

Thomson Sawmills Ltd

PROJECTS

The Fire Security management team has a strong engineering background, with many years' experience in the fire protection industry. We have expertise in all forms of fire protection, including automatic sprinklers, deluge water spray, foam and gaseous extinguishing systems. Training for excellence is the cornerstone of our business. We train our own design engineers to ensure they are able to deliver the perfect fire protection system for your building and the people who use it. All our engineering and support staff; project managers, project engineers, administrators and installation engineers are fully qualified and undergo regular training to update their skills. Fire Security knows its customers appreciate continuity of care. When you appoint us, you will be given a dedicated Project Manager who will determine and deliver all of your project requirements. We are able to execute the largest of contracts in accordance with an agreed delivery programme, while remaining flexible and efficient for the smaller customer. Full in-house Computer Aided Design facilities offer fast and effective solutions to all spatial and practical problems. Our advanced data control system allows instant document and drawing exchange. We pride ourselves on an exemplary protection record and on being the supplier of choice for some of the country's best-known companies.

PROJECT MANAGEMENT

Fire Security operates a 'Single Point of Contact' philosophy for execution of contracts. This project manager will work under the company's ISO 9001 approved quality procedure document and will be responsible for:

- > CDM
- > Programming
- > Design
- > Quality & Environmental management
- > Health & Safety
- > Procurement
- > Financial control

In order to successfully manage a contract, the project manager will have the full support of the Fire Security team including:

- > Health & Safety Advisor
- > Design Engineer
- > Installation Engineer
- > Credit Controller
- > Quality Administrator
- > Site Foreman
- > Commissioning Engineer



DESIGN

Fire Security prides itself on training its staff to the highest level. The project team's design engineers will work in tandem with project managers who have acquired the relevant design qualifications to maintain the LPC Level 4 approval. The design will be checked by our design manager to ensure total compliance with the design criteria set out in this document.

Co-ordination will be carried out in conjunction with the other mechanical and electrical sub-contractors with cross sections produced through pinch-point areas to minimise any disruption on site. Drawings are produced using the latest AutoCAD package and are issued electronically as pdf documents for approval and to ensure all parties are kept up to date with the latest information. Designs can be carried out in 2D or 3D formats.

BUILD

We can guarantee our installations are of the highest standard. All suppliers and products used are selected strictly in accordance with our ISO9001 quality system. We also control every step of the process so we are able to meet our delivery schedules.



QUALITY MANAGEMENT

Fire Security has built a reputation for reliability and cost-effectiveness, coupled with an unquestioned commitment to quality. This commitment has been rewarded with ISO 9001 accreditation with quality procedures seamlessly integrated into the duration of the project process.

TRAINING

Once we have completed your installation, our service doesn't end there. It is important your system is tested regularly and we train your staff in how to carry out those simple weekly test routines.

CONTRACT ACCOUNTING

The project engineer will be responsible for financial control of the contract with the support of the commercial manager as follows:

- > Detailing any variations and agreeing with the customer
- > Preparing and issuing payment applications and invoices
- > Agreeing the final account with the customer



HEALTH & SAFETY

The project manager will be responsible for Health & Safety for the contract duration. This includes:

- > Carrying out risk assessments
- > Preparing method statements
- > Collating COSHH assessments
- > Designing out risks in accordance with CDM
- > Carrying out site investigations and reporting
- > Production of operation and maintenance manuals.

Fire Security are committed to providing its employees with a safe working environment and prior to any works taking place the project manager will attend site, assess the risks and prepare and issue a site-specific method statement and risk assessments for client approval. While our projecting staff are qualified with IOSH Health and Safety training we recognise that H&S is continually evolving and monitoring our H&S performance and standards is achieved with advice from an outside H&S specialist. Our continual improvement and track record for safe practice has been rewarded with accreditation to the Safe Contractor and Building Confidence schemes which recognise very high standards in health and safety, quality and environmental management amongst UK contractors.

PROGRAMMING

Prior to on-site commencement the project manager will agree a detailed programme of works to meet with the customer's requirements. This will aid us in successfully managing the design and procurement process and monitor on-site progress. By continually reviewing the programme against progress made and to meet any variations in contract or site conditions, the project engineer will report accordingly and micro-programme as necessary to assist in achieving target dates. The installation works would be based on maintaining continuity of works.

PROCUREMENT

The project manager with the project team will procure materials to meet the agreed programme of works. Materials will be sourced from approved suppliers only in accordance with our quality assurance procedures. Pipework will be pre-fabricated off-site to maximise our on-site efficiency and will be coded to suit a construction issue working drawing, which would then be used to install the pipework system. Loose material and equipment would be locked in a secure store which will provide a clean, safe environment for reviewing working drawings and storage of site documentation.



OUR WORK

Since 1972 Fire Security has covered a variety of projects, with no restrictions on locations and industries. We approach every project with the same goal in mind: to ensure the client is given the best suited solution, with reliability and cost-effectiveness.

Below are just a few examples of the major fire prevention projects we have undertaken:



Project: Distribution Centre
Location: Rugby
Project Value: £500,000.00

Automatic sprinkler system in accordance with BS EN: 12845 standards.

Comprising:

- > Sprinkler protection to the warehouse area, roof mezzanine and gantry with a design density of 12.5mm/min over an area of operation of 260m²
- > Sprinkler protection to the hub office with a density of 5mm/min over an area of operation of 216m²

The sprinkler protection is controlled by 5 No. wet installation control valves which are located in the warehouse area as detailed on the block plan. The wet control valves are fitted with an alarm flow switch for interconnection with the premises' fire alarm panel.

Two diesel fire pumps rated to 9,374 litres/min @ 7.4 bar drawing water from two cylindrical above ground water storage tanks each with a capacity of 470m³. The tanks are automatically filled by a connection from the town's mains supply.



Project: School
Location: London
Project Value: £400,000.00

Automatic sprinkler system in accordance with BS EN: 12845 standards.

Comprising:

- > Sprinkler protection to the school building at ground, first and second floor levels.
- > Sprinkler protection to the sports hall building plant room at first floor level.

The sprinkler protection is controlled by 1 No. wet installation control valves which are located in the external pumphouse as detailed on the block plan. The wet control valve is fitted with an alarm flow switch for interconnection with the premises' fire alarm panel.

One diesel and one electric fire pump drawing water from two cylindrical above ground water storage tanks which are automatically filled by a connection from the town's mains supply.



SERVICING & MAINTENANCE

The effectiveness of an automatic sprinkler system does not end at its design and installation. Although an automatic sprinkler system may never be needed, when it is required it could save millions of pounds and more importantly, it could save lives. To ensure your sprinkler system will be fully operational in such an emergency it is critical that it is regularly and routinely inspected and serviced.

Servicing will not only extend the installation's operational life and maintain its effectiveness but it will also provide invaluable piece of mind.

WHAT FIRE SECURITY OFFERS

Fire Security provides a tailored value-for-money service and has a reputation within the industry for integrity and quality. We provide a comprehensive maintenance service for:

- > Wet Sprinkler Installations
- > Pre-action and Deluge Systems
- > Residential and Domestic Sprinkler Installations
- > Foam-enhanced Sprinkler Installations
- > Legionella Testing
- > Electric and Diesel Fire Pumps
- > Fire Hydrants
- > Alternate air/water Sprinkler Installations
- > Dry and Wet Risers
- > Staff Training

*Alternate Systems are no longer permitted under BS EN: 12845 – Systems are to be made wet or dry.



“Management of a sprinkler system doesn’t end at the installation stage.”

SERVICE ROUTINE

All our maintenance engineers are fully trained in all aspects of an automatic sprinkler system servicing. We can tailor a service agreement to suit the customer’s needs or the requirements of the insurer. Typical service agreements may include:

- > Staff training
- > Weekly or bi-weekly automatic pump starts and testing of alarm devices
- > Monthly checks of battery electrolyte levels
- > Quarterly Premises Inspections and hazard reviews
- > Bi-annual fire pump services
- > Annual fire pump full-flow tests and below ground fire hydrant flow tests
- > Changing of valve set gaskets

IMPROVEMENT NOT COMPROMISE

Fire Security is dedicated to ongoing improvement programs, to ensure the service and maintenance we provide meets both customer and insurer demands and reflects the life expectancy that such an industry demands. Our experienced engineers will deliver complete inspection of your system, to ensure all requirements are met all of the time. Fire Security is working towards becoming the most proactive service and maintenance industry provider. Ongoing research and development into software and hardware ensures continual advances in customer service and premium quality on-site practices.

CONTRACT OPTIONS

As a result of valued customer feedback, Fire Security is now offering the choice of one-year or three-year service contracts. We have found three-year contracts save time on renewing, a reduction in paperwork while securing prices for the three-year period.





MAINTENANCE ADMINISTRATION SYSTEM

A comprehensive report is provided to the customer after each visit. Our engineers use our bespoke electronic Maintenance Administration System (MAS), which has been specifically designed to offer consistent, comprehensive reports and provide clarity to the engineer's findings.

An added benefit of the system is that every customer has their own login and reporting page, from which past reports can be downloaded at any time. A unique login would be created for you to access the system.



The two screenshots above provide a preview of the system:
The login screen can be found at: <http://mas.firesecurity.co.uk>

SYSTEM INFORMATION

AUTOMATIC SPRINKLER SYSTEM

Sprinklers are simple devices that are individually operated by the heat from a fire. When a fire starts hot gases rise. If a sprinkler is present, a glass bulb or solder link gets hot and at a specific temperature breaks, releasing a cap and allowing water to flow onto a diffuser. The diffuser breaks up the water flow into carefully controlled droplets which penetrate the fire and cool the burning material to below its ignition point, thus controlling the fire. Only the sprinkler(s) directly over the fire are operated. The sprinklers are connected to pipework, usually filled with water, which is supplied either from the water mains or from a storage tank via a pump. When a sprinkler operates, the flow of water in the pipework operates a flow switch which in turn operates an alarm system. The flow of water is small, usually less than 1/100th of the water used by the Fire and Rescue Service.

FOAM SUPPRESSION

Foam suppression is used where flammable liquids or plastics can catch fire. The fire spreads very quickly and toxic combustion gases are emitted. Foam is used as a blanketing and cooling agent, coating the fuel to prevent contact with oxygen.

WATER DELUGE

Sprinkler systems are usually designed to protect the whole building. Deluge systems are used in rooms with high ceilings to quickly wet down an entire area in facilities that contain highly flammable liquids and chemicals.

HYDRANTS AND HOSE REELS

Fire hydrants are installed on properties to enable the fire service to have instant access to a local water supply to limit the spread and extinguish the fire. Fire hose reels are designed to provide a large, continuous, controlled volume of water to fight fires.

DRY RISER

Dry risers are used to supply water within buildings for fire-fighting purposes. The provision of a built-in water distribution system means fire fighters do not need to create their own distribution system in order to fight a fire and it avoids the breaching of fire compartments by running hose lines between them. Dry risers do not contain water when they are not being used, but are charged with water by the fire service when necessary.

WET RISER

Wet riser systems are very similar to dry, except they are permanently charged with water. They are used where floors are over 50m above the Fire Service access level and where supply pressures exceed those of the fire appliance.



CARE AND MAINTENANCE OF AN AUTOMATIC SPRINKLER SYSTEM



Premises User's ongoing, weekly and monthly responsibilities as identified in the LPC Technical Bulletin TB 203:2015

The following tests and checks should be made as applicable by the Premises User's as stipulated in the LPC Technical Bulletin TB 203: 2015 of 'LPC Rules for Sprinkler Installations' incorporating BS EN 12845:2015:

CONTINUOUS REVIEW OF HAZARD

Review of hazard should be a continuous process undertaken by the user. Where changes occur that might change the effectiveness of the sprinkler protection, immediate remedial action should be taken. At quarterly intervals the process should be formalised by a review by a sprinkler servicing contractor.

WEEKLY ROUTINE

Generally, each part of the weekly routine should be carried out at intervals of no more than seven days.

The following should be checked and recorded:

- all water and air pressure gauge readings on installations, trunk mains and pressure tanks;
- all water levels in elevated private reservoirs, rivers, canals, lakes, water storage tanks (including pump priming water tanks and pressure tanks);
- the correct position of all stop valves which control the flow of water to the sprinkler system(s) from the water supply, up to and including the installation control valves and stop valves but excluding the water undertaker's stop valve on a town's mains supply to the system.

Tests:

Water motor alarm test:

Each water motor alarm shall be sounded for no less than 30 seconds.

Automatic pump starting test:

Tests on automatic pumps shall include the following:

- water pressure on the starting device shall be reduced, thus simulating the condition of automatic starting;
- when the pump starts, the starting pressure shall be checked and recorded;
- check there is cooling water flowing through open circuit cooling systems;
- check diesel pump oil pressure;
- check fuel and engine lubricating oil levels in diesel engines;
- check the correct operation of any automatic ventilation louvres.

Diesel engine restarting test:

Immediately after the pump start test, diesel engines shall be tested as follows:

- the engine shall be run for 30 minutes, or for the time recommended by the supplier. The engine shall then be stopped and immediately restarted using the manual start test button;
- the water level in the primary circuit of closed circuit cooling systems shall be checked.
- Oil pressure (where gauges are fitted), engine temperatures and coolant flow shall be monitored throughout the test. Oil hoses shall be checked and a general inspection made for leakage of fuel, coolant or exhaust fumes.

Trace heating and localised heating systems:

Heating systems to prevent freezing in the sprinkler system shall be checked for correct function.

Fire and rescue service and remote central station alarm connection:

The equipment for automatic transmission of alarm signals from a sprinkler installation to a fire and rescue service or remote manned centre shall be checked for:

- continuity of the connection;
- continuity of the connection between the alarm switch and the control unit, if the circuits are continuously monitored.

MONTHLY ROUTINE

General, each part of the monthly routine shall be carried out at intervals of no more than one calendar month in addition to the tasks identified in the weekly routine (TB203.2.2).

Checks:

Batteries:

Check the electrolyte level of all battery cells, (including diesel engine starter batteries and those for control panel power supplies) and carry out all other maintenance procedures specified by the battery manufacturer. Check the battery charging voltage and make sure it has not changed. Report any changes to the sprinkler service contractor.

Water storage tank security:

The access ladder to all sprinkler water storage tanks shall be checked for correct housing and security and any tank ball valve covers shall be secured and locked.



WE ARE SERIOUS ABOUT STANDARDS

Fire Security is LPCB 1048-1 Level 4 certified, the highest approval level possible for sprinkler contractors in the UK & Ireland, and is only one of the handful of sprinkler contractors to obtain this certification. This means Fire Security is able to self-certify all our designs, reducing the turnaround time and costs for both design and installation of Fire Protection Systems compared to many of our competitors. Having experience in all aspects of the Sprinkler Industry, Fire Security's fully qualified and experienced staff are able to deal with any technicality and eventuality. All our management procedures are certified to ISO 9001 standards by our regulators the Loss Prevention Certification Board (LPCB).

With an ISO 9001 Quality System in place you can be assured we keep up to date not only with today's high standards and requirements, but also future trends and best practices in quality, health & safety and environmental.

Fire Security is committed to the highest levels of quality. We were founder members of the British Automated Fire Sprinkler Association and are a member of the Fire Protection Association.

SAFE CONTRACTOR

Safe Contractor is a leading third party accreditation scheme which recognises very high standards in health & safety management amongst UK contractors. Under the Safe Contractor scheme, businesses undergo a vetting process which examines health & safety procedures and their track record for safe practice.



ACHILLES BUILDING CONFIDENCE

The Achilles Building Confidence scheme is quickly becoming recognised as the standard for supplier excellence within the construction industry and is recognised by many main contractors. Achilles developed the Building Confidence accreditation working in partnership with Bovis Lend Lease to bring the supplier pre-qualification and accreditation service for the UK construction industry. It includes a wide range of strict criteria significant to health, safety, quality and environmental practices which are fully assessed and audited to provide customers with benchmarked performance criteria.



CONSTRUCTIONLINE

Constructionline is the UK's leading procurement and supply chain management service that collects, assesses and monitors standard company information through a question set that is aligned to PAS 91, the standardised pre-qualification questionnaire developed by BSI to reduce duplication within the construction industry.



COMMITTED TO THE FUTURE

Fire Security Ltd has an ongoing programme of investment in its resources. This has ensured that our experienced, competent engineers install, service and maintain all types of systems across a variety of industries. We offer an emergency call-out and advice service if needed, provided 24 hours a day, 365 days a year.



OUR MISSION

Our mission is to be the favoured Fire Protection contractor, providing a high quality, price effective system with unrivalled customer service. We are a 'Yes' company that works tirelessly to provide exceptional design and systems which meet the industry standards, showing professionalism and knowledge with everything we do. Through continued investment in both our people and our facilities, Fire Security (Sprinkler Installations) Ltd works collaboratively to become a reliable industry contractor.



Protecting lives and livelihoods from fire since 1972.

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