



SPRINKLER SERVICE



25 YEAR SPRINKLER SERVICE

Did you know that after 25 years (or sooner depending on condition) sprinkler installations should undergo a range of enhanced inspections and tests? These inspections and tests help to ensure that the sprinkler installation will still operate as it was designed to do.

Saving lives and property

To determine that the sprinkler heads will operate and distribute water as intended, and that the pipework will deliver the required water pressure and flow at any point in the installation.

This forms part of the LPC Rules for Automatic Sprinkler Installations 2015 incorporating BS EN 12845 ("the standard") for a fully compliant sprinkler system.

Activities which form part of this service are taken from BS EN 12845 TB203.3.8:

- Flushing of Installation Pipework
- Internal and External pipework inspection
- Sprinkler head testing

Flushing of Installation Pipework

To enable flushing to be carried out on systems which were installed 25 years ago flushing connections (valves) will first need to be installed on the remote ends of each distribution pipe as these were not required to be installed as part of the original installation, for newer installations, after 2006, it is now compulsory to fit these at install stage.

Each flushing test is reviewed for water quality, foreign matter and sediment, flushing is carried out until water runs clear at each flushing point.



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Internal Inspection of Pipework

The condition of your sprinkler pipework is another crucial factor in the correct operation of your system. Scaling, corrosion or leaks in your pipework are all areas of major concern.

Wouldn't it be good to know what's going on beneath the surface of your pipework?

In order to comply with "the standard" two separate sections of pipe of each pipe size from 25mm to 150mm in diameter is required to be removed from each installation and internally inspected for any foreign bodies or presence of tubercles (bacteria).



If the pipework is found to be in poor condition it may be necessary to remove these sections of pipe and replace with new. The removed sections would then be sent to an independent laboratory for testing and an independent report would be issued.

Sprinkler Head Testing

Sprinkler heads can be damaged and distorted (Mechanical Defects); this will affect the heads' ability to function. This is a common occurrence, and as can be seen from the images below, often routine maintenance does not pick up these issues e.g. where the view of the head is not possible from ground level or is obstructed/blocked from view.

Many environments are harsh, and sprinklers could be sprayed with paint or chemicals. Water can be hard or soft, and if left stagnant can corrode pipes, often leaving debris to build up inside (Environmental Damage).

Examples of damage/deterioration not visible from ground level:



Distorted deflector plate



Yoke and arm defects



Restrictive paint



Water corrosion



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Other issues that can arise that only extensive inspection and testing can identify are for example:



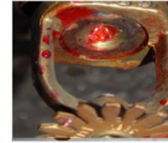
Part of the detection element has 'hung up' on the deflector plate which in turn stops the water dispersing correctly.



The fusible element has dropped and hung on the deflector plate, which in turn stops the water dispersing correctly.



Called strutting, when exposed to heat the glass does not shatter correctly, holding the seal in place and so stopping the water from being released.



On this test the valve seat has lodged even though the glass has shattered, stopping the water from being released.

In order to comply with "the standard" a proportion of sprinkler heads must be removed from each installation and sent away to an independent test laboratory; this number is determined by table TB203.T1

These are tested for:

- Operation
- Operation Temperature
- Variation of K-Factor
- Spray Obstacles
- Lodgement
- Thermal Sensitivity

New sprinkler heads are installed where the sample heads have been removed.

An independent report would then be issued for the sprinkler heads.

Every 25-year service "project" is thoroughly project managed and documented with a full report with detailed references to each sample, supported with photographs of any findings and where available drawings.



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