

Uniclass L7165	EPIC G631
CI/SfB (68.54)	X

Greenflow®

The integrated flushing fire sprinkler system.
Low maintenance, high reliability.



The Homesafe Greenflow® life safety fire sprinkler system is designed and installed under licence. The fire sprinkler heads are served via a network of pipes, which also feed a household plumbing fixture on each level.



Water travels round the system each time the connected fixtures draw water from the pipework, eliminating the risk of water stagnating in any of the pipes. The self-flushing nature of the network also reassures the occupants on an almost continual basis that there remains a supply of water to each sprinkler head.

Individual sprinkler heads are unobtrusive and fitted flush to the ceiling or wall: they look similar to large drawing pin heads, about 80mm in diameter. Tamper-proof, they may be supplied to match the interior colour scheme.

Sprinkler systems operate independently whereby the nearest sprinkler will activate when triggered by heat from the fire. Thus, for instance, a fire in a bedroom will only activate the sprinkler(s) in that room. Cooking fumes and smoke from cigarettes will not activate the sprinkler system.

On activation, sprinklers discharge a calculated, relatively small amount of water from the nearest sprinkler head. This is in a spray pattern designed to damp down the fire and control its growth. Usually this will be sufficient to extinguish the flames thus minimising smoke and fire damage. The small amount of water used also minimises water damage: controlling the fire at this stage greatly reduces the damage caused by Fire Service action which would, typically, use 10-20 times as much water.

The odds against an accidental discharge by virtue of manufacturing defect is 1 in 14 million.

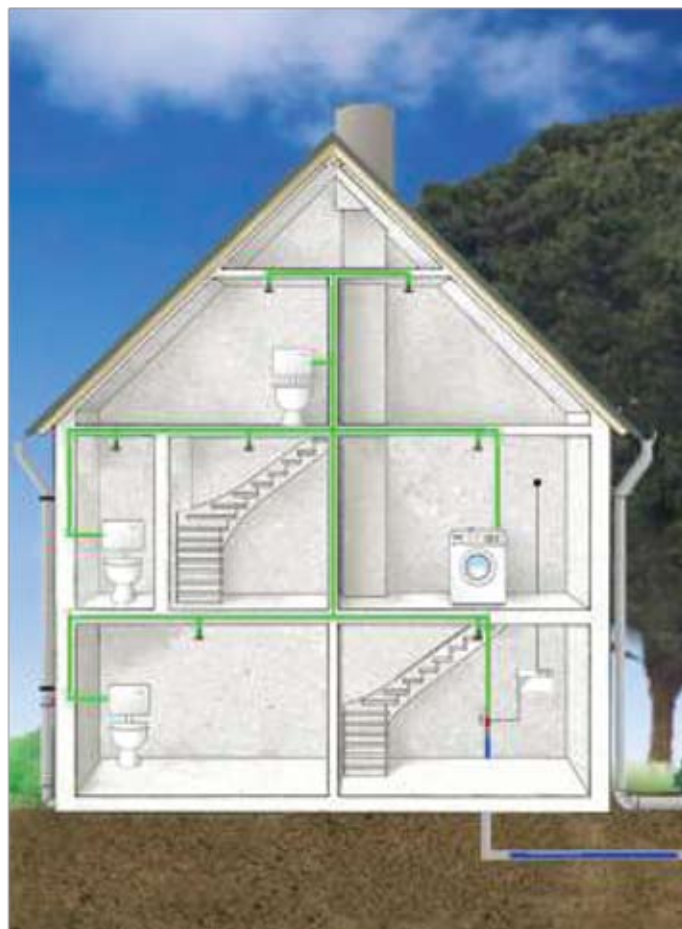
APPLICATIONS

Greenflow® sprinkler systems are suitable for use in:

- bungalows and houses
- apartment and residential blocks
- other houses in multiple occupancy
- nursing homes and hotels
- schools
- hospitals
- warehouses
- offices
- modular construction.

STANDARDS

Greenflow® sprinkler installations will meet requirements of **BS 9251:2005** for both residential and domestic occupancies; **NFPA 13R** for residential occupancies; **NFPA 13D** for domestic occupancies.



DESIGN

Each system is designed individually in-house on AutoCAD, and hydraulically calculated to the Hazen-Williams formula in accordance with the relevant sprinkler standard. **As each project is unique, this published specification can only be a typical guide to the Greenflow® system we may design for your project.**

WATER SUPPLY

As a guide, we require you to provide a minimum 32mm (domestic sprinkler system) or 63mm (residential) incoming supply pipe with, usually, a 28mm connection from that supply to the Homesafe valve set location. Please provide a full bore lever valve on the sprinkler branch to allow Homesafe to make the final connection. (It is the responsibility of others to supply the water mains).

The sprinkler system is dependent upon the flow and pressure shown on the Homesafe design drawings and it is the client's responsibility to provide this otherwise an alternative arrangement will need to be designed.



DESIGN DENSITY GUIDE

Domestic Applications 120 litres per minute at approximately 2.5 bar. To supply 2 heads operating simultaneously for 10 minutes.

Residential Applications 240 litres per minute at approximately 3.5 bar. To supply 4 heads operating simultaneously for 30 minutes.

(Specific requirements will be hydraulically calculated on the confirmation of order and water supply. Minimum operating pressure at the head to be 0.48 bar).

INSTALLATION

Installation is undertaken by approved, licensed contractors to documented procedures and guidelines.



COMMISSIONING

Each system is commissioned by a HomeSafe engineer. This is a relatively simple process following installation, providing all the services are active. Subsequently, certificates of completion are issued.

CONTROLS

Domestic Applications Valve set consisting of 25mm stop valve, 25mm backflow prevention device, alarm indicator, pressure gauge and a 25mm test valve.

Residential Application Valve set consisting of 50mm stop valve, 50mm backflow prevention device, alarm indicator, pressure gauge and a 25mm test valve.



Greenflow favoured in fire engineered scenarios, due to additional reliability

SPRINKLER HEADS



Typically will be Tyco Series LFII Residential 4.2 Concealed Pendent sprinkler heads. Cover plates, where used, to be flat white, bright white, chrome or customised in accordance with BS EN 12259-1. The final specification of the heads is dependent on environmental factors and the Authorities Having Jurisdiction.

PIPE WORK



The system design will incorporate:

BlazeMaster® CPVC tube conforming to ASTM F442 and BS 7291-4, UL and Loss Prevention Board listed and WRAS compliant with a 50 year warranty. Pex (A-type, cross-linked polyethylene tubing), UL listed and WRAS compliant with a 25 year warranty.

Copper tubing or carbon steel pipework where required, as specified in the Standard.

FITTINGS

All jointing of the pipework will be by an approved method conforming to the relevant Standard. BlazeMaster® CPVC fittings are UL listed and LPCB listed, conforming to ASTM F438/439. ProPEX fittings are UL listed and WRAS compliant. Stainless Steel 316 fittings, flanges and screwed fittings are UL listed.

PUMP (IF REQUIRED)

The design may incorporate a quiet running, horizontal, multi-stage centrifugal pump, which for domestic purposes will provide 120 litres per minute @ 2.5 bar. Multiple pumps may be used for residential performance requirements.

ALARMS

An alarm indicator is provided with each valve control unit. Interface to be agreed with client.

WARRANTY

Each system carries a 12-month warranty for defective parts and installation from the date of commissioning and thereafter must be maintained on an annual basis by HomeSafe qualified engineers.

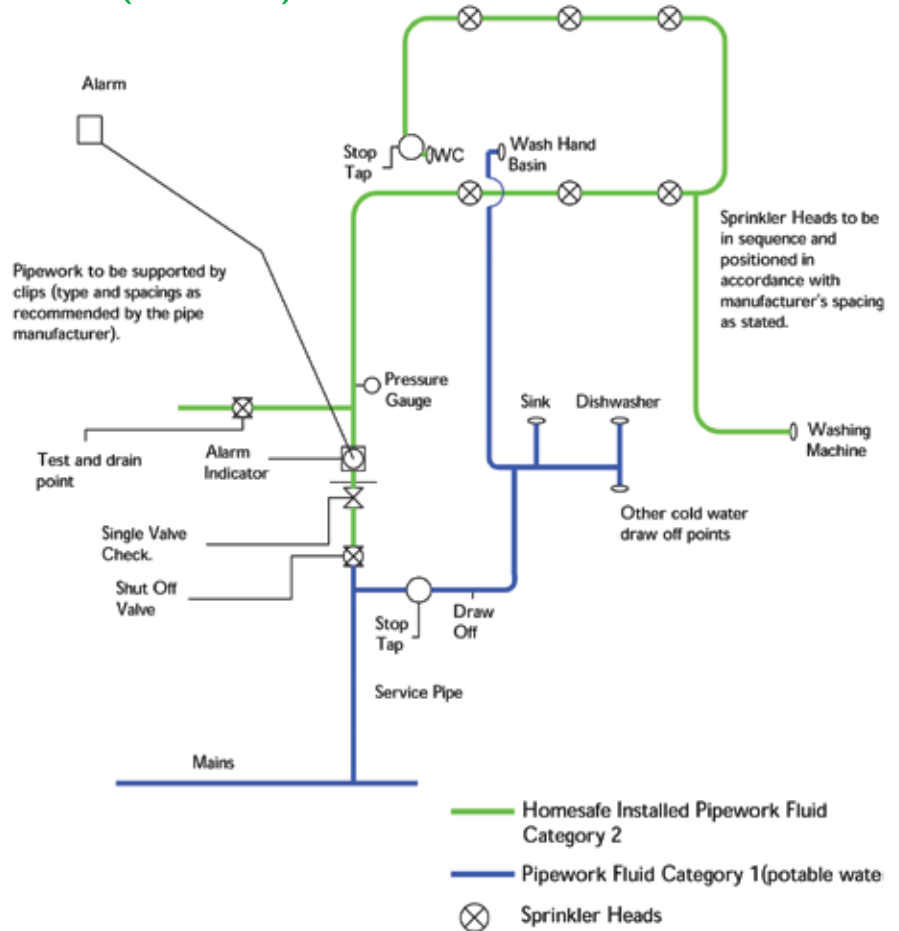
MAINTENANCE

Available for a monthly fee. Under the terms of cover, the cover plates, alarm function and water supply of each fire sprinkler system are inspected and tested annually. Components are changed at stipulated intervals. Additionally, users have access to a 24 hour advice line.

Homesafe reserves the right to alter system component specification to suit project requirements and technological advancement.



**GREENFLOW® SYSTEM SCHEMATIC*
(DOMESTIC)**



* Representative layout, each system is individually designed.



 **The Homesafe Group**
Designing for the next generation

UK Head Office:
Homesafe Group, Suite 1,
Link 665 Business Centre, Todd Hall Road,
Haslingden, Rossendale, Lancashire BB4 5HU
Tel 0333 456 0011. Fax 0333 456 0021.

Manchester London Edinburgh Bristol Isle of Man Scandinavia

© 2008 The Homesafe Group
CT009 (REV 0110)