

A FireSAFE is a small compact and economical fire pump package, designed to operate within both sprinkler and water-misting applications.

The unit comes as a plug 'n' play solution, reducing installation time. FireSAFE units are suitable for applications from 0-800 l/min and where pressures of 1-18 bar are required. Smaller units are available for either 230v / 1ph / 50Hz (domestic power supplies) or 400v / 3ph / 50Hz. Larger units available for 400v / 3ph / 50Hz only.

When would I need a FireSAFE set?

This product is used in premises that have insufficient mains pressure to deliver water to their fire system. Sprinkler/misting heads require a minimum operating water pressure to work effectively. Consideration also needs to be given to pipe and pressure losses to ensure necessary pressure can be attained.

When activated in a fire development situation, it is critical that the pressure does not decrease at any point. This is because a decrease in pressure would prevent the sprinkler/misting head working effectively, causing the fire to continue to grow or re-ignite.



Premium Residential FireSAFE Set

Applications

Domestic:

- Individual flats and houses

Residential:

- Homes of multiple occupancy
- Care homes
- Sheltered accommodation
- Student accommodation
- Small hotels

Watermist:

- Hotels
- Residential properties
- Care homes

A standard FireSAFE package would consist of the following:

- Grundfos CR(i) Pump (very reliable products from the Grundfos industrial range to meet the high pressure demands).
- Non-return valve (to prevent backflow of water).
- Primary adjustable pressure switch for pump control.
- Secondary bank-up pressure switch (factory set).
- Flow switch (to detect if there is a flow present through the pump/pipes).
- Control panel (programmed to typical fire philosophy).
- Isolating valves (preventing full draining/ disconnecting from system during service).
- Premium units also include a test line isolation valve (not included on basic units).

How to select a FireSAFE?

Systems are designed in domestic and residential sprinkler systems by the category of the installation type and the design density of the sprinkler heads to be used. Systems must always be correctly sized in accordance with BS9251:2014. Typically, we would see the following demands.

Category One:

This would be considered for applications with single family dwellings or small hotels. The system would be designed for one or two heads operating, with a design density of 2.8mm/min for a single head, or 2.04mm/min for two heads. The minimum operational period would be ten minutes, allowing time for fire services to reach the location of the fire.

Category Two:

This would be considered for applications with blocks of flats less than eighteen metres in height or small residential care premises (less than ten residents). The system would be designed for one or two heads operating, with a design density of 4.0mm/min for a single head, or 2.8mm/min for two heads. The minimum operational period would be thirty minutes.

Category Three:

This would be considered for applications with blocks of flats over eighteen metres in height or properties with more than ten residents. The system would be designed for two to four heads operating, with a design density 2.80mm/min for each sprinkler head. The minimum operational period would be thirty minutes.

Please note, the category of the system is subject to increase dependent on the vulnerability of the residents and/or the protection of communal areas. Design density should be translated into sprinkler pump flow requirements via use of specialist hydraulic design software

Water-misting applications:

Unlike sprinkler installations, water-mist requirements differ between the application and water-misting heads. Water-mist will usually require lower flow requirements per nozzle, but higher pressure demands. Misting systems must be properly tested to ensure they operate effectively.



Basic Residential FireSAFE Set

Benefits

- FireSAFE is a compact complete solution offering simple plug 'n' play installation.
- The unit comes with volt-free contacts able to inform you remotely from the FireSAFE unit if the unit is running and/or if there is a power supply problem (hard-wired) offering the assurance and knowledge that your property is properly protected.
- Basic and simple controls means ease of understanding, the automated design means it is easy to understand how the set operates.
- A monthly self-test increases the lifespan of the equipment and saves money on service visits.
- On the "basic" unit all wetted parts are cast iron. On the "premium" unit all wetted parts are stainless steel.
- Fail safe feature ensures you have the peace of mind that the equipment is working as intended.

The FireSAFE sets are fully compliant with the following:

- BS 9251 2014 – Sprinkler systems for residential and domestic occupancies.
- BS 8458:2015 – Fixed fire protection systems, residential and domestic water-mist systems.

What other equipment might I need?

- Break Tank
- Remote Alarm Panel
- Battery Backup/Backup Generators
- Priming Tank Arrangements