FIRE SUPPRESSION SYSTEMS

High value Computer Rooms or Data Centres invariably require the protection of a fire suppression system to protect valuable equipment/information, whilst also protecting the continuity of the day to day running of a business. Risk Management assessments and Insurance Company requirements invariably lead to a necessity to detect fire and provide fire control measures.

The actual risks suppression systems are used for can vary from IT equipment/enclosures, generator rooms, high voltage switch rooms to archive stores, museums or work place kitchens. If a water sprinkler system is deemed to be not suitable either due the class of fire or the assets being protected, then we can offer a wide range of products to ensure both life and assets are protected to highest standards and workmanship.

Our engineers have 25 years combined experience in supply and installation of suppression systems and provide bespoke systems best suited for the purpose. We have engineers trained by all the UK's leading OEMs including Kidde, Fike, Tyco, Komtes and FSL, giving us the best overview of the products on the market and what will be best suited to each client's assets. We can offer the full range of Inert products, which work by reducing the ambient oxygen level in the enclosure down to below what is required for a fire to combust, yet above what is required to sustain human respiration. Alternatives to Inert systems are the ranges of chemical gases, the most popular and in demand being FM200 (HFC227-ea) and Novec 1230 which we have installed in many different situations.

We are not tied to any one product so can therefore select, design, install, commission and service maintain any of these systems to the highest quality of customer care and satisfaction, whilst ensuring that you “the customer” have received the best possible system for your needs.

We can also offer a range of kitchen fire suppression systems including Wet Chemical and Water Mist which are a crucial piece of equipment for any commercial kitchen; they can respond automatically within seconds should a fire break out.

Perfectly suited for hotel kitchens, restaurants and fast food outlets, all kitchen fire suppression systems are bespoke to suit your customers’ particular range of kitchen appliances, regardless of your kitchen size and layout.

All existing suppression systems need to be serviced on a 6 monthly basis. This is to ensure the full mechanical operation should it be needed in a fire situation. It is very important that the engineer servicing the system has experience in the type of product being maintained.

All our engineers are F-Gas registered and have a broad knowledge of most systems installed in the market. There are, however, some systems which require specialist service engineers and we have contacts throughout the industry to ensure that the product being maintained is done so in accordance with the manufacturer's guidelines and to the relevant standards. Routine maintenance is also used to regulate the TPED requirement of all pressurised suppression cylinders being hydrostatically tested (pressure testing).

Enclosures protected by gas suppression systems require adequately sealing to contain the concentration of gas within the space for the required minimum retention time against an allowable leakage rate. To evaluate whether an enclosure has sufficient air tightness we can perform a Room Integrity Test by using the internationally recognised Retrotec Fantestic Software. A calibrated and certified axial flow fan is fitted into the door frame and used to pressurise and depressurise the entire room.

By running the calibrated fan at a certain speed, thus generating pressure into / from the space, and by monitoring the pressure differential within and external to the room, that flow rate is actually measured, data inputted to software together with the volume of the enclosure, protected height and the fill weight of gas (FM200 / FE25 / Novec 1230 or the Inert gasses such as IG55, IG541 and IG100) and a descending interface height hold time, or mixing concentration result is obtained.

If, however, a room can hold the gas above a specified height for descending interface or above 85% of the design concentration for 10 minutes or more, then a Pass result is recorded and the enclosure can be certified for a further 12 months. If, however, the retention time is below 10 minutes then our experienced Test Engineers will carry out a full survey identifying as many leakage paths as possible, so sealing works can begin and return visit booked in. Testing is required each year in accordance to most International standards to re-certify the room and the gas suppression performance, and may be a requirement of the client's insurance company to revalidate the protection provided to the space.

ENCLOSURE SEALING WORKS

Downtime within any area of critical equipment can mean tens of thousands of pounds in lost revenue and sometimes even in the region of six figures. We can be on site to simultaneously address integrity problems, coinciding under test criteria to resolve insurance recommendations. Whilst maintaining the highest level of integrity criteria in our Test Engineers and Sealing Engineers, we can offer you a single fix integrity solution. We will together work towards integrity pass criteria and can take any room to its highest level of integrity and appease site apprehensions. In accordance with both British and European standards all pressurised gas cylinders should be periodically tested and inspected in accordance with BS EN 1968:2002. To adhere to this standard we can offer both Service Exchanges and Hydrostatic testing of all cylinders.

Most enclosures which are protected by suppression systems require constant cover. If this is the case then we can offer a service exchange option which means there will no down time whilst the cylinders are off site being tested. We can offer like for like cylinders for most products which are delivered to site on the same day that the existing cylinders are isolated, disconnected and removed. This ensures absolute minimal downtime and continued protection for life and assets.

HYDROSTATIC TESTING

Fire suppression systems utilise high pressure vessels which must be maintained by law. The process of testing is achieved by hydrostatically pressurising the cylinder that contains the fire suppression agent. Hydrostatic pressure testing must be carried out every 10 years. The pressure vessel (fire suppression cylinder) must be decanted, cleaned and dried. Once the contents and contaminates have been removed the fire suppression cylinder is filled with water and pressurised. As water cannot be compressed, when under pressure it allows us to verify that the cylinder is safe and fit for purpose.

If you require any of the above services please call us on 01420 375376.