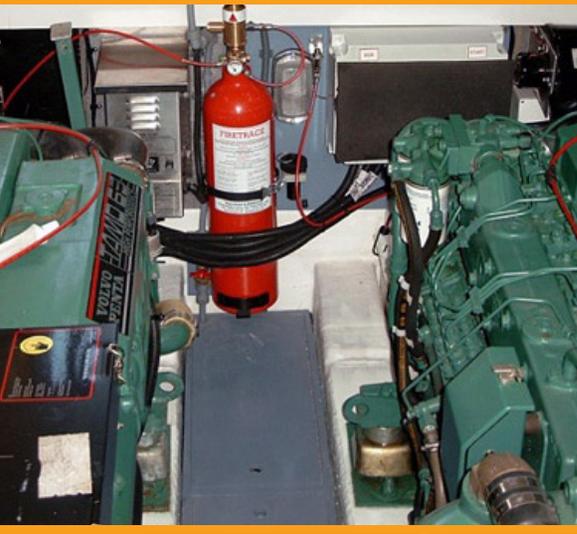




FIRETRACE[®]
AUTOMATIC FIRE SUPPRESSION SYSTEMS

**POWER GENERATION AND
DISTRIBUTION EQUIPMENT**

Fire Protection Solutions



THE PROBLEM

Virtually all power generation and distribution equipment – from small portable emergency generators to massive utility grade diesel turbines – present significant fire risks. All power generators operate using highly flammable fuels and lubricating oils. Many of these power generators operate under punishing conditions that stress mechanical and electrical components to the limit. Leaking fuel, oil or hydraulic lines, a buildup of oil mist on equipment, faulty electrical connections or arcing can result in an intensely hot fire that can damage or destroy a generator and result in serious revenue losses and downtime.

Most generator fires are fast flaming fires that are difficult or impossible to extinguish with an overhead sprinkler system. These types of fires also have the potential to quickly spread to adjacent equipment and property and threaten the life safety of occupants within the building. This prevents a high-risk situation with the potential to not only destroy a high value capital asset, but also threaten lives and property.

COLLATERAL COSTS OF A GENERATOR FIRE

The collateral costs of a generator fire vary according to application and industry. A power outage that affects mission critical equipment in hospitals, factories, public transportation systems and air traffic control centers can result in tremendous revenue losses as well as threaten lives and property. Installing a Firetrace automatic fire detection and suppression system is a very inexpensive form of insurance that can save countless dollars in lost revenues and safeguard lives and property. Firetrace systems are safe for people, equipment and the environment and listed and approved for both large and small spaces.

A Firetrace system can protect high value/mission critical power generation and distribution equipment including:

- Gas turbines
- Diesel generators
- Standby/backup power generators
- Steam turbines
- Transformers
- Co-generation equipment
- Electrical control rooms
- Cable tunnels

THE FIRETRACE SOLUTION

Firetrace offers a unique solution for protecting all types of power generators against the risk of fires. The heart of the Firetrace system is the company's unique, pressurized detection tubing, which can be routed in and around the hazard areas of mobile and stationary power generators. The heat-sensitive tubing is designed to burst when exposed to a fire's radiant heat, which automatically triggers the release of the fire suppressing agent. The detection tubing is immune to gas, oil, dirt, vibration and temperature extremes that can cause other fire systems to fail, yet is reliable enough to avoid false discharges. And because the detection tubing is located in the hazard area where fires begin, it can react many times faster than conventional fire detection systems.



The Firetrace Detection Tubing is the "heart" of the system

FIRETRACE ADVANTAGES:

- ✦ Completely automatic 24/7 fire detection and suppression
- ✦ Activates automatically – no human assistance needed
- ✦ Very inexpensive compared to other fire protection options
- ✦ Does not interfere with generator maintenance
- ✦ Does not require any electrical power to operate
- ✦ Optional pressure switch can be used to shut down equipment
- ✦ Clean suppression agents requires no clean-up
- ✦ Non-corrosive agents will not harm power generators
- ✦ Safe for use on energized equipment
- ✦ Easy to install and maintain

Firetrace systems are compatible with most commercially available fire suppression agents, including CO₂ (Carbon Dioxide), multi-purpose dry chemical powders, foam, and “clean” extinguishing agents such as DuPont™ FM-200® and 3M™ Novec™ 1230 Fire Protection Fluid.

Firetrace fire detection and suppression systems are available exclusively through a worldwide network of distributors who are factory trained and certified to install, maintain and service Firetrace systems.

HOW IT WORKS

Firetrace offers two types of suppression systems: Direct and Indirect. Both systems are compatible with a variety of high- and low-pressure fire suppressing agents.



Firetrace Direct System

The Direct System utilizes the red detection tubing as both a fire detection device and the fire suppressing agent delivery system. The tubing is installed in and around the fire risk areas. When a fire occurs, the tubing will burst at the point of highest heat, forming an effective discharge “nozzle”. The agent is then delivered through the tubing at the burst point, suppressing the fire quickly and thoroughly – right at the point of inception.



Firetrace Indirect System

The Indirect System utilizes the tubing as a detection only device. When the tubing ruptures, the extinguishing agent is delivered through a network of braided hose or stainless steel tubing to strategically placed nozzles within the protected enclosure. Indirect systems are available with a manual release option which allows the operator to activate the system at the first sign of trouble.



The red Firetrace detection tubing is routed throughout the risk areas, providing fast detection and suppression.



Firetrace offers options such as a manual release and a warning horn, which is triggered by activation of the system.



A Firetrace system will quickly suppress a substation fire before it can become a major event.

FIRETRACE®

AUTOMATIC FIRE SUPPRESSION SYSTEMS

FIRETRACE® Power Generation and Distribution Machinery

Firetrace pre-engineered automatic fire detection and suppression systems have been field proven for more than two decades on stationary and mobile power generators operating in harsh environments. Firetrace has its origins in the late 1980's in the United Kingdom as a special hazard fire suppression system. Through the 1990's applications expanded to include enclosures such as machines, fume hoods, data centers and electrical cabinets as distribution increased in Europe.

In 2001, the worldwide rights to Firetrace were purchased by Firetrace USA, a group of fire suppression industry veterans who saw the value in creating fire suppression systems for "micro-environments". This concept is simply providing supplemental protection that suppresses fire quickly within the protected space before larger room or building systems would activate. As a result of this supplemental protection, fire damage, both direct and collateral, and costs associated with cleanup and downtime are significantly reduced or eliminated. Available in multiple system sizes (ranging from one pound systems to 50 pound systems) and utilizing a variety of fire suppressing agent options, Firetrace is the fire suppressing system of choice for virtually all electrical and mobile mining equipment.



Firetrace currently has more than 20 international approvals and listings, including: UL, CE, FM, ULC & ISO9001. Approvals and listings vary by system type and agent.

Firetrace is available exclusively through our worldwide distributors, each of which has been properly trained in the installation and maintenance of Firetrace systems. To locate the Firetrace distributor nearest you please contact us at:

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