

# FIRE

## SURFACE AND UNDERGROUND MINING EQUIPMENT FIRE PROTECTION SOLUTIONS

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

### The Problem

Protecting surface and underground mining equipment against fires can be challenging. Virtually all of the mobile equipment used in mining operations contains large quantities of highly-flammable diesel fuel, lubricating oils, and hydraulic fluids. The energized electrical equipment used in mining operations also presents an elevated fire risk.

Most mining equipment is operated around the clock under punishing conditions that stress mechanical and electrical components to the limit. Material or fluids coming in contact with hot exhaust or engine parts or an electrical fault can quickly erupt into a fast-spreading fire that can result in expensive repairs and unscheduled downtime. And, most importantly, an unchecked and uncontrolled equipment fire can pose a serious threat of death or injury.



### The FIRETRACE Solution

**FIRETRACE Detection Tubing is the "heart" of our system**



**FIRETRACE** offers a unique solution for protecting all types of mining equipment 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 electrical mining equipment. The heat-sensitive tubing is designed to burst when exposed to a fire's radiant heat, which automatically triggers the release of the fire extinguishing 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.



**For Reliable Fire Protection, be sure you are installing Genuine FIRETRACE systems.**





The red **FIRETRACE** cylinder can be seen here, along with the red detection tubing as it is run to the critical areas.



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



A **FIRETRACE** system can prevent a small fire from becoming a major event.

## Typical Areas Protected

### Heavy Equipment

- ⊕ Earthmovers
- ⊕ Excavators
- ⊕ Crawler tractors
- ⊕ Haul trucks
- ⊕ Tram systems

### Mobile Equipment

- ⊕ Roof bolters
- ⊕ Drill jumbos
- ⊕ Crushing machines
- ⊕ Scaling machines
- ⊕ Diesel tractors

### Electrical Equipment

- ⊕ Water-pumping systems
- ⊕ Ventilation controls
- ⊕ Electrical panels
- ⊕ Transformer banks
- ⊕ Air systems

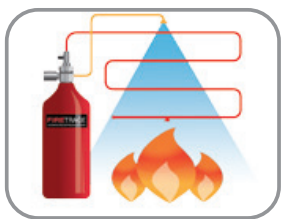
## Tailored Solutions

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



### **FIRETRACE Direct Systems**

The Direct System utilizes the red detection tubing as both a fire detection device and the extinguishment 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 Systems**

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.

## **FIRETRACE Advantages**

- ⊕ Fast, reliable fire detection and suppression
- ⊕ Activates automatically - no operator assistance needed
- ⊕ Requires no electrical power, operates pneumatically
- ⊕ Does not interfere with equipment operation or maintenance
- ⊕ Compact systems offer multiple configuration and design options
- ⊕ Can be configured to shut down equipment and trigger alarm
- ⊕ Optional ruggedised protective coatings increase cylinder durability

**FIRETRACE** systems are compatible with most commercially-available fire-suppression agents, including “clean” extinguishing agents such as Dupont™ FM-200® or 3M™ Novec™ 1230 fire protection fluid, as well as CO<sub>2</sub>, dry chemical powders, foam, and water.

**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.



**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.

This may not be a stock item. Please speak to our sales representative about lead times. Lead times, price and availability can only be determined on receipt of an official quote from our supplier. This can sometimes take up to 3 days.

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