

A large red and blue container handler forklift is shown in operation at a port. The forklift is lifting a red container. In the background, there are other containers, a white building, and a large red and white crane structure. The sky is blue with some clouds. The forklift has 'F45' written on its side.

FIRETRACE[®]

AUTOMATIC FIRE SUPPRESSION SYSTEMS

**PORT/INTERMODAL
CONTAINER HANDLING EQUIPMENT**

Fire Protection Solutions



THE PROBLEM

Every container port and intermodal freight terminal operator lives by a simple guiding principle: “Time is money.” To stay competitive, port authority and intermodal freight operations must minimize revenue losses due to unscheduled downtime. One of the more serious causes of unscheduled downtime is equipment fires, which can severely disrupt operations, pose a threat of injury or death to workers, and result in costly repairs.

Laurence Jones, the TT Club’s Director of Global Risk Assessment, has urged all port/intermodal operators to be aware of the risk of fires in mobile equipment which can result in serious injuries to workers and result in costly repairs and operational downtime.

Protecting mobile equipment against fires can be challenging. Virtually all of the mobile cargo equipment used in port and intermodal freight operations – including reach stackers, lift trucks, forklifts, straddle carriers, gantry cranes, mobile cranes, tractor units and trucks – contain highly flammable pressurized hydraulic fluids. They also contain pressurized fuel and oil lines that are located in close proximity to hot engine parts and electrical components.

Mobile equipment is operated around the clock under extremely punishing conditions that stress mechanical and electrical components to the limit. A leaking fuel line, burst oil feed or ruptured hydraulic hose can result in an intensely hot, swiftly-spreading fire that can lead to devastating financial and operational consequences.

THE FIRETRACE SOLUTION

Firetrace offers a unique solution for protecting mobile equipment against the threat of fires. The heart of the Firetrace system is the company’s unique, pressurized detection tubing, which is constructed from a proprietary polymer composition. The flexible detection tubing can be easily routed in and around the hazard areas of mobile equipment. The tubing functions as a *multipoint linear pneumatic heat sensor* that bursts when exposed to a fire’s radiant heat. This automatically releases the fire extinguishing agent and provides fast and reliable fire detection and suppression.

The Firetrace detection tubing is immune to dirt, shocks, vibration and the corrosive effects of sea water that can cause other fire systems to fail – yet is reliable enough to avoid false discharges. And because the detection tubing is routed through the hazard area – where fires begin – it can react many times faster than conventional detection systems. Every second saved results in less damage and, ultimately, less downtime. In fact, in many cases lift equipment can be returned to service immediately following replacement of a failed component.

FIRETRACE ADVANTAGES:

- ✦ Fast, reliable automatic detection and suppression
- ✦ Activates automatically in the event of a fire, no operator assistance needed
- ✦ Pre-engineered system allows for quick and easy installation
- ✦ Pneumatic activation requires no power to operate
- ✦ Does not interfere with equipment operation or maintenance
- ✦ No false discharges - responds only to a fire's radiant heat
- ✦ Manual release option allows operator to activate system at first sign of trouble
- ✦ Can be configured to shut down equipment and trigger alarm
- ✦ Supported by a network of more than 250 distributors worldwide

The financial and operational repercussions of equipment related downtime can be devastating. Protect yourself with Firetrace.

HOW IT WORKS

Firetrace offers two distinct fire suppression systems to suit your particular application.



Firetrace Direct System

The Direct System utilizes the detection tubing as both the fire detection device and the fire suppressant delivery system. In the event of a fire, the tubing ruptures, forming a discharge “nozzle”. The agent then releases through the tubing nozzle, suppressing the fire quickly and thoroughly – right at the point of inception.

Firetrace Indirect System

The Indirect System utilizes the tubing as detection only. When the tubing ruptures the pressure is released, allowing the valve to operate and deliver the suppressing agent through braided hose or copper or stainless steel tubing to strategically placed nozzles within the protected enclosure.

Firetrace indirect systems are available with a manual release, enabling the operator to activate the system at the first sign of trouble.

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 CO₂, dry chemical powders, foam, and water.



The Firetrace Detection Tubing is the “heart” of the system



Firetrace systems feature LINE-X high performance protective coatings which increase cylinder durability and helps extend equipment life expectancy.



Firetrace systems can withstand punishing high pressure steam washes and high corrosion salt water environments.

FIRETRACE[®]

AUTOMATIC FIRE SUPPRESSION SYSTEMS

FIRETRACE[®] Intermodal Freight and Port Authority Applications

Firetrace has more than 150,000 systems installed protecting business critical equipment worldwide, with years of experience protecting heavy lift and container-handling equipment. 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 container-handling and heavy lift 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:

World Headquarters

Firetrace International

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