

# FIRETRACE<sup>®</sup>

POWER TO INNOVATE. FLEXIBILITY TO ADAPT.

## DUST AND MIST COLLECTOR

Fire Protection Solutions



**AIRPLUS**  
Industrial

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Automatic activation allows the Firetrace system to be mounted in remote locations.



A Firetrace system can be fitted to cartridge, cyclone, bag filter and other dust collectors.



A Firetrace system can be scaled to fit virtually any size dust or mist collection system.

## THE PROBLEM

The production of flammable dust or mist is a common byproduct of many manufacturing processes. Dust is produced by various cutting, grinding, coating and sanding operations used in the pharmaceutical, chemical, petrochemical, food, agricultural and many other industries. Oil mist is produced by turning, milling, boring and grinding operations employed by metalworking industries, which uses oil for cooling, lubricating and cleaning purposes.

Collecting and containing dust and mist is essential for maintaining a healthy and safe workplace. However, dust and mist collectors can be a fire risk. Sparks generated by the manufacturing process can ignite highly flammable dust and oil mist inside the collector, as can smoldering debris or burning material drawn in through the ventilation system. Other sources of ignition include overheating motors, coils and bearings; friction, static discharge and for many types of dust, spontaneous combustion.

A dust or oil mist collector fire can result in serious financial and operational consequences. Equipment repairs, damage to plant facilities, loss of revenues due to unscheduled downtime, increased insurance premiums and the risk to plant personnel are just a few of the costs associated with a fire event.

## THE FIRETRACE SOLUTION

Firetrace offers a unique solution for protecting dust and mist collectors against the threat of fires. The Firetrace system utilizes unique, flexible, pressurized detection tubing that can be easily routed inside the collector and through the ventilation ductwork. The tubing, which functions as a multipoint linear pneumatic heat sensor, is designed to burst when exposed to a fire's radiant heat, triggering the release of the fire extinguishing agent. Because the tubing is located inside the collector and ductwork – right where a fire starts - incredibly fast fire detection and suppression is assured.

Another benefit of the Firetrace system is its ability to effectively suppress deep seated hazards, which are common to dust collection systems. Deep-seated hazards are subject to smoldering fire conditions, and are best extinguished by a three-dimensional extinguishing agent. Firetrace typically recommends the use of Carbon Dioxide (CO<sub>2</sub>) as the extinguishing agent.\* CO<sub>2</sub> is a highly effective, listed and approved three-dimensional fire extinguishing agent that can be easily scaled to fit virtually any size dust collector system. CO<sub>2</sub> will quickly penetrate all parts of the collector to effectively suppress a deep-seated fire in seconds. And every second saved results in less damage and, ultimately, less downtime.



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

## FIRETRACE ADVANTAGES:

- System activates automatically in the event of a fire
- Detects and suppresses a fire inside the hazard area
- Responds only to a fire's radiant heat – no costly false discharges
- Installs easily in any new or existing collection system
- No electrical power required, operates pneumatically
- Can shut down fans, close electrically controlled valves and trigger fire alarm with optional pressure switch
- Clean fire suppressing agents leave no residue and require no cleanup
- Prevents collateral damage from overhead sprinkler system
- Reduces damage to equipment and unscheduled downtime

## HOW IT WORKS

Firetrace is a leader in filtration system protection.

Firetrace can provide a pre-engineered fire detection and suppression system to protect most common dust or mist collector systems.

For the majority of dust and mist applications a Firetrace Indirect High Pressure (IHP) CO<sub>2</sub> system will provide optimal results.\*

The flexible red pressurized detection tubing is routed across the air intake, throughout the interior of the dust or mist collector, and out through the ventilation ductwork. This provides a full 360 degrees of fire detection and suppression for the collector as well as the assurance that a fire will not propagate through the ventilation ductwork where it can spread to the building's structure.

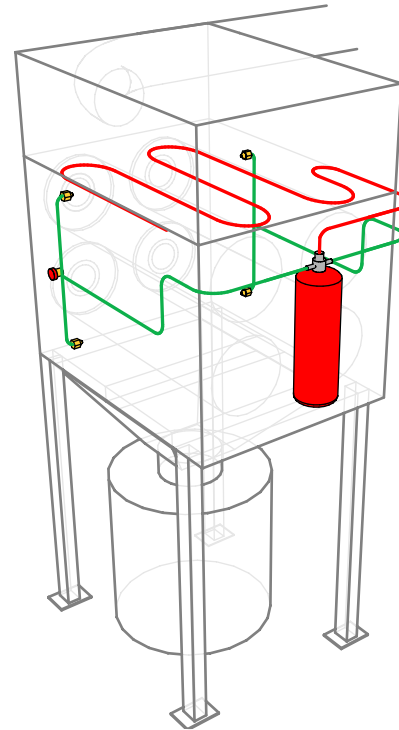
Strategically placed nozzles deliver a high volume of CO<sub>2</sub> designed to effectively knock down a fire within the collector and follow the airflow through the ductwork to catch a spreading fire.

A pressure switch is available that can provide multiple functions such as automatically switching off the fan to stop the supply of fresh air; closing electrically activated sliding valves in the ductwork; and triggering audible/visible alarms or the building's main alarm if available.

Firetrace Indirect Low Pressure (ILP) dry chemical and clean agent systems are also available for dust and mist collector applications.

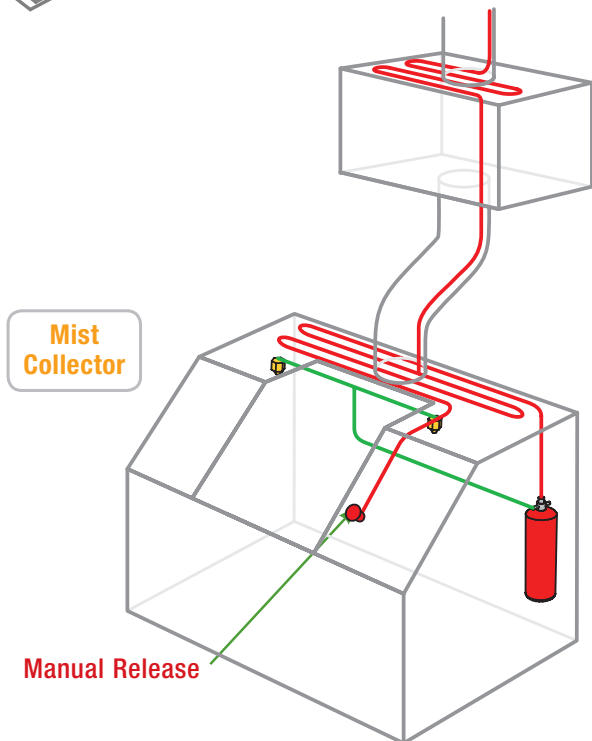
\* While this is a common selection of agent, a proper hazard assessment by a qualified fire protection professional should always be conducted before a fire suppression system is installed.

Dust Collector



-  Firetrace Detection Tubing
-  Indirect System Nozzle

Mist Collector



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## FIRETRACE® Dust and Mist Collector Applications

Firetrace has more than 250,000 systems installed protecting business critical equipment worldwide. 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 any dust and mist collector.

Firetrace is available exclusively through our worldwide distributors, each of which has been properly trained in the installation and maintenance of 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.