

# Firetrace Application Briefs

AB006

## Manufacturing Conveyor Belt

A distributor in the Carolinas recently quoted a Firetrace Indirect High Pressure (IHP) system with 20 lbs. of CO<sub>2</sub> for a conveyor belt area where plastic products are heated prior to being sent further down the conveyor. The fire hazard is that occasionally the products jam up together and the heater overheats one of the plastic parts causing a fire. The owner has agreed to place an enclosure around the area, and the Firetrace IHP system will flood the enclosure when the jammed plastic products catch fire. A Pressure Switch will be used for alerting the operators, and a Manual Release will also be incorporated in the system.

## Mass Data Storage Units

A distributor in the Midwest has proposed Firetrace to the regional office of a manufacturer of mass data storage units. A Firetrace Indirect Low Pressure (ILP) system with 12 lbs. of FM-200 would be part of a total fire protection system. The storage units would be equipped with an early warning, highly sensitive smoke detector. Should a fire begin, the smoke detector would promptly annunciate the fire. If this occurs during working hours, an operator would determine the severity of the situation and, if possible, extinguish the fire with a portable. If the fire grew too quickly while an operator was present, they could use the Manual Release to activate the Firetrace system. Should the fire occur after hours, the ILP system would detect the fire and automatically extinguish it.

## Flammable Liquids Storage

A major chip manufacturer in the West is purchasing Firetrace systems to protect exterior flammable liquids storage cabinets. Using Firetrace Indirect Low Pressure (ILP) systems filled with 6 lbs. of FM-200, the systems will have Firetrace Detection Tubing beneath every shelf allowing for fast detection in each cabinet bay. With the DLP system, not only does the Firetrace system quickly detect a fire in a bay, but the fire is suppressed right where needed. The 6 lbs. of agent will provide an extended discharge time as well as a very high concentration to overcome the cup burner values of the chemicals being stored.

## Audio Equipment Cabinets

Elaborate home theater installations are becoming very common across the United States. These systems are comprised of many individual electronic components and are usually in small, enclosed areas. These types of installations are causing fire hazard concerns for many local fire officials. Firetrace Direct Low Pressure (DLP) systems filled with FM-200 provide an excellent choice to provide first hand protection for this concentrated equipment area. With its flexibility, the DLP's tubing can be routed above, around and through (if necessary) the equipment providing detection and suppression of a fire at its point of ignition. (Please see Applications Spotlight AP002 for a related story with pictures.)



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## Vacuum Pump Enclosures

A southern state's Department of Agriculture needs fire protection for cabinets that house vacuum pumps associated with their chemistry equipment. These pumps are located below other valuable equipment, and a potential fire could grow very large before activation of the main building's fire alarm system. The hazard is approximately 3' x 3' x 2' and poses a significant fire risk due to overheating. Because of the ability to deliver agent in the specific area of a potential fire, a Direct Low Pressure (DLP) system filled with 3 lbs. of FM-200® is being proposed.

## Overbeck Grinding Machines

A distributor in the Northeast has proposed Firetrace Indirect Low Pressure (ILP) systems using 12 lbs. of FM-200 to provide fire detection and suppression for the interior of grinding machine enclosures. A spark from the grinder can ignite the oil mist inside the machine work area potentially damaging this expensive equipment and placing plant operations at risk. Firetrace tubing is ideal for detection as it is unaffected by the machine oil used to cool the grinding process. A Manual Release is proposed to allow the operator to initiate the system manually if required and a Pressure Switch is connected to automatically shut down power to the machine.

## Military Simulators

A distributor in the Southeast has proposed Firetrace systems to a major defense department manufacturer to protect the interiors of critical cabinets and power supplies within their tank simulators. To date, they have used halon total flood systems to protect the entire room. They are considering Firetrace Low Pressure systems, both Direct and Indirect, filled with FM-200 to provide local protection. Pressure Switches would be included on all of the systems, and, where applicable, Manual Releases would be used.

## Anechoic Chamber

A distributor in the Midwest is working on a project that includes an anechoic chamber (sound proof) application. For this anechoic chamber, metallic material cannot be located inside the chamber because of its inherent ability to reflect sound waves. This put a dramatic limitation on any type of fire detection until the distributor proposed Firetrace tubing for a "detection only" application. The tubing will provide accurate fire detection without electrical or metal concerns. The tubing will be connected to a Direct Low Pressure (DLP) valve and cylinder charged with nitrogen. A Pressure Switch will activate the building's alarm system.

## Server Cabinet - Museum

A distributor in the Northeast has proposed a Firetrace Direct Low Pressure (DLP) system using 3 lbs. of FM-200 to provide fire detection and suppression for the interior a server cabinet. The ongoing reliability of the equipment housed in this cabinet is essential to the museum's regular operation and is considered a mission-critical piece of equipment. The system configuration includes a Pressure Switch to activate the building's alarm system.



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## MRI Machines

MRI machines have become a fairly common and practical medical diagnostic tool in the last 15 years. Almost all hospitals have MRI systems, and there are an ever-growing number of freestanding MRI centers. Total flooding rooms that house the equipment can be a problem since a patient might be in the machine if an activation occurs (accidental or an actual fire). Firetrace offers reliable, cost-effective “in Cabinet” fire protection to these critical, high revenue-generating machines without the potential risk to patients or staff.

## Engine Test Cells

A distributor in the Southeast is proposing Firetrace to a major heavy equipment manufacturer who has fire concerns in their engine test cells. The test cells are used to test the diesel engines that are produced at this factory. Indirect High Pressure (IHP) systems using CO<sub>2</sub> are being proposed to protect the cells. Only a sprinkler head currently protects the cells, and the owner feels this is an unacceptable fire suppression solution. Each system would be fitted with a Manual Release and a Pressure Switch. Systems would be interfaced to building's fire alarm system as well as the PLCs that control airflow and fuel supplies in the test cells.

## Backup Generator

A distributor in the Northwest has closed a sale for the protection a large building backup generator unit. Using a Firetrace Indirect Low Pressure (ILP) system filled with 12 lbs. of FM-200, the system will flood the entire closure, building up a concentration high enough and fast enough to suppress the fire quickly, completely and cost-effectively. The system will utilize a Pressure Switch to shut off the fuel source and an additional Pressure Switch to trigger the building notification system.

## Chemical Transfer Cabinets

A West coast distributor is working with a major pharmaceutical company to protect chemical transfer cabinets. A transfer cabinet, simply defined, is a cabinet used to dispense large quantities of chemicals into smaller containers such as beakers. Due to the high volume of chemical storage, the need for fire protection is obvious. The system will be Indirect Low Pressure (ILP) using 12 lbs. of FM-200. Due to the relatively high cup burner value of many of the chemicals, it's better to create a higher concentration of FM-200 within the enclosure.

*We welcome your submissions on where you are proposing Firetrace as well as where you have already supplied Firetrace. We will make sure the report is published in a “generic” fashion. Just fill us in on the details such as why the customer is looking at or why they chose Firetrace, and we'll take care of the rest! Submit your application details to: [gray@firetrace.com](mailto:gray@firetrace.com).*

