APPLICATION SPOTLIGHT

Firetrace Systems Protect Fume Cabinets

Image 1 *Firetrace tubing mounted in the baffles.*

Fume cabinets (also referred to as exhaust hoods) have always possessed an inherent fire risk. With the presence of highly combustible liquids and flame sources such a s Bunsen burners, the potential for a disastrous fire usually exists. Since these cabinets are designed to pull hazardous fumes out of the air, strong air currents are continually pulled through the cabinets, providing excellent fuel (oxygen) for a fire.

Historically, this application has been difficult to protect. On occasion, large systems, designed for completely different applications, have been retro-fitted and scaled down in an effort to provide workable fire protection. These systems were costly and often provided "overkill" protection.

Image 2 *Firetrace tubing mounted across the exhaust vents.*

Today, a Firetrace Indirect Low Pressure (ILP) system offers the perfect fire protection solution for fume cabinets. As air is moved through a cabinet, flames from a potential fire would immediately be pulled up the baffles towards the exhaust vents. Our proprietary, flexible detection tubing is idea for installation inside a fume cabinet's baffles and across the exhaust vents (see images 1 and 2). With this placement, detection quicky occurs in a matter of seconds (see image 3). The appropriate fire-suppressing agent is then immediately released through a distribution-piping network and then into the fume cabinet's work space itself (see image 4). Firetrace systems work with dry chemical powders, CO_2 and FM-200®.

When designing a Firetrace fume cabinet system, a few key areas need to be addressed. First, the rate of air flow through the cabinet needs to be determined. Some additional agent will be needed to compensate for the agent that is evacuated by the cabinet's exhaust system. Next, it is extremely important to properly choose the correct agent for the specific chemicals used at each unique installation. Some agents may react negatively with a few chemicals. Lastly, the placement of the system's nozzles is very important. If the cabinet is a tabletop model (as depicted in image 4), nozzles should be placed as shown; however, if the cabinet is a walk in model, the side nozzles would need to be repositioned to account for the lower work space. As with every Firetrace application, each fume cabinet application is unique and must be carefully evaluated and installed by a Firetrace-certified fire protection company.

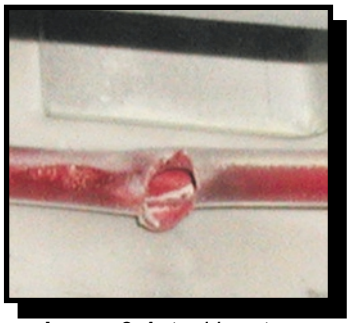

Image 3 *Actual burst on detection tubing*

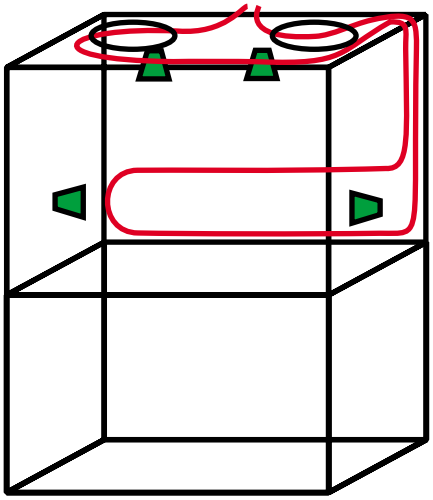

Image 4 *Sample Firetrace configuration*

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