

FIRETRACE INTERNATIONAL (EMEA)



FIRETRACE® provides CNC equipment with fast-acting fire protection

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With sophisticated CNC and EDM [Electrical Discharge Machining] machines now topping the US\$500,000 mark, a growing number of manufacturing companies are opting to protect their business-critical equipment with a FIRETRACE® stand-alone automatic fire suppression system, according to Firetrace International.

The company reports that the system is today protecting in excess of 10,000 machines worldwide; it is simple to install and remarkably inexpensive considering the cost of the machine being protected and the knock-on cost if fire puts it out of action.



FIRETRACE is a "self-seeking" fire extinguishing system that is UL [Underwriters Laboratories] listed, FM [Factory Mutual] approved and CE [Conformité Européene or European Conformity] marked, and comprises an extinguishing agent cylinder attached to proprietary Firetrace Detection Tubing via a custom-engineered valve. This small-bore polymer tubing is a linear pneumatic heat and flame detector that was specially developed to deliver the desired temperature-sensitive detection and delivery characteristics. The leak-resistant tubing quickly detects a fire at its source, ruptures and – in Firetrace Direct Release systems – automatically releases the suppression agent, extinguishing the fire precisely where it starts and before it can take hold. However, machine tool applications typically use the Firetrace Indirect Release system, where the FIRETRACE tube is used as a detection and system activation device, but not for the agent discharge. The rupturing of the tube results in a drop of pressure causing the indirect valve to activate. This diverts flow from the detection tube and the extinguishing agent is discharged from the cylinder through diffuser nozzles, quickly flooding the entire machine enclosure.

Nick Grant, EMEA Vice President & General Manager for Firetrace International, commented: "Modern cutting, grinding, turning and milling equipment is very reliable but, due to the large amount of oil-based coolant they use, they do represent a significant fire hazard." He continued: "A drop in oil level in an EDM machine, for example, can easily result in a fire as the coolant oil and oil vapour can, in an instant, escalate a single spark into a major fire. Excessive heat can be generated by improper programming of a CNC machine or a failed tool, causing a flash-fire as the cooling oil ignites. With the trend toward lights-out, unattended operation, FIRETRACE provides a critical safety measure to safeguard against a small problem developing into a catastrophic event."

With so many thousands of machines protected by FIRETRACE, Firetrace International receives reports weekly about successful fire suppressions. A recent report from Denmark related how a fire broke out while the owner was standing next to the machine. Before he was able to react, the system had activated and suppressed the fire. The local authorised Firetrace distributor was quickly onsite, and the machine was back in service in less than two hours.

In a typical installation for an EDM machine, the Firetrace Detection Tubing is run from the cylinder, down the ram and circles the base of the ram just above the usual operating oil level. The discharge nozzles are installed well above the oil surface on both sides of the ram to deliver the agent with an even, soft discharge that suppresses the fire without dispersing the burning oil.

FIRETRACE systems for CNC machines are invariably supplied with either DuPont™ FM200® gaseous suppression agent or CO2 [Carbon Dioxide]. Both suppressants do no harm to the sensitive equipment being protected, nor do they leave any residue to clean-up after discharge, further reducing machine down-time. Another bonus is that FIRETRACE is self-activating, which means it does not require any electrical power.

Firetrace Indirect systems can be supplied with manual releases that enable the machine operator to activate the system at the first sign of trouble. FIRETRACE systems are also available with pressure switches, which can be configured to sound alarms or shut down machines.

ISO 9001:2008 registered Firetrace International is headquartered in Scottsdale, Arizona, with its EMEA offices in Gatwick in the UK. Genuine FIRETRACE is available only via Firetrace

International's global network of authorised distributors. These trading partners are skilled in hazard analysis, agent and system selection, installation, commissioning and support. They also use only genuine FIRETRACE components. Details of these authorised distributors are available by contacting Firetrace International at info@firetrace.com. The FIRETRACE EMEA head office in the UK can be contacted on +44 (0) 1293 780390 and the company's website is at www.firetrace.com.

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