

THE TALE OF THREE FIRES IN THREE YEARS AND FIRETRACE

We are an SME in the East Midlands that have been in subcontract engineering for 16 years now. It was in 2002 we had our first CNC Milling Machine Fire, a cutter broke and continued cutting igniting the Titanium Swarf, the fire melted the Perspex in the door, the electrical cabling and some circuitry. The machine shut down quite quickly due to the power supply melting but there was £3000 worth of damage and the machine was out of commission for 2 days but only due to a lot of miles up and down the M1 for spares and the MD fitting the parts himself. This down time would have been a lot longer if we had had to have the parts delivered and had to wait for an engineer to fit the parts.

But, fire number one was no big deal.

Fire number two, December 2004. A Titanium billet that is not aligned quite right, comes on to the machine via the pallet changer at 1am, the arbour of one tool rubs against the titanium body and ignites the swarf, due to the position of the electrics and circuitry these do not melt. The machine carries on running, carries on pumping mineral oil, carries on burning. The fire alarm goes off at 2am. The fire brigade can not enter the premises due to the amount of thick acrid black smoke until 4am.

A quarter of a million pound machine is written off. All the computers in the establishment are ruined, the server is ruined, every surface is covered in a sticky black substance that is apparently acidic. There follows a month or reduced production as the machines can not be accessed as each and every one has to be cleaned. There is scaffolding in place for months as the factory is cleaned and re decorated. The good news is our insurers, AXA have been excellent, and no-one was hurt.

But, fire number two was a very big deal.

The similarities were, titanium swarf igniting in the machining process due to a small problem. We machine a fair amount of titanium day and night and problems do occur. The differences were that with fire number one the electrics melted early on and the machine shut down. With fire number two the fire continued as long as there was lubricant and swarf to burn.

So the MD searched for something that would shut the machine down if a fire occurred and act as a fire extinguisher inside the machine at the seat of the fire. And he found FIRETRACE.

Fire number three, November 2005, incorrect speed on a cutter cutting titanium, too fast, friction and the titanium ignites, again on a quarter of a million pound machine. FIRETRACE activates, the fire is put out and shuts down the machine. The Filtermist unit has sucked some fire out that melts its hose and sets off the fire alarm. By the time the fire brigade came the machine has a new cutter in it and is up and running within the hour, this time with the correct speeds and feeds. Oh and we need to order a new hose for the Filtermist the following day.

So fire number three was no big deal. and that is thanks to FIRETRACE. There is nothing much to photograph, except a metre length of melted hose. That is the whole point, this fire caused no down time and cost next to nothing. Why FIRETRACE is not incorporated as standard on any machine that is going to cut flammable metals is the only question.