New fire safety regulations for machine tools

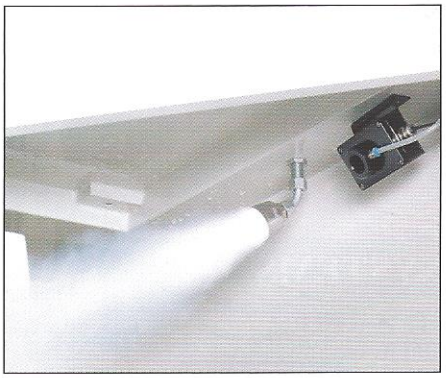
Don't take the risk – know the law!

Kraft & Bauer UK, whose systems are currently protecting over 30,000 machine tools, is warning UK engineering companies of recent changes to the law that affect anyone using machines of any type. Louise Boraston, MD, comments: "Many people are still of the mistaken belief that only grinding machines need fire protection and then only when grinding with oil. This is completely untrue and indeed most of our sales are made throughout Europe to turning machine tool companies such as Citizen, Index, Mikron, Spinner, Star, Tornos and Traub.

That said, grinding machines remain at the most severe risk of fire, and on average most fire related incidents on machine tools tend to be on grinding machines. Kraft and Bauer supplies major grinding machine companies such as Bahmuller, Ewag, Reishauer, Rollomatic, Schneeberger, Tschudin, Vollmer and Walter as well as leading UK based specialist grinding machine makers such as Earlsdon Technology and Abwood."

The latest fire safety regulations require property occupiers (companies using machine tools) to carry out a detailed fire risk assessment and to comply with its recommendations. Failure to do so can result in a very large fine or even imprisonment.

Risk assessments are required and engineering companies must show that not only have fire risks been identified that steps have then been taken to prevent accidents and injury to employees. Is a machine tool a fire risk? It is difficult to argue that it is not, as there are many fires on machine tools of all types in the UK in any given year. How can



fires be prevented if machines are not fitted with an appropriate fire extinguisher safety system? There is probably no other satisfactory method available, at least one that is generally acceptable to health and safety officers who are tasked with claims following fires on machines.

Many companies feel that this means that fire extinguishing systems have to be used on all types of machine, in all cases, and for all applications. The law is unclear but does specifically state that "depending on the hazards anticipated by the manufacturer, machinery must, where its size permits, either allow easily accessible fire extinguishers to be fitted, or to be provided with built-in automatic extinguisher systems". It goes onto state that "in the case of machines being ran unmanned then automatic fire extinguishing systems must be fitted".

The law further stipulates that "the mandatory fitment of automatic fire protection systems to machines not only covers those that may be run unmanned but also in respect of all machinery which comprises highly flammable parts". Highly flammable parts may be construed as any machine using oil but also any machine cutting especially hazardous material such as titanium or

magnesium alloys as used widely by the aerospace and other industries.

To summarise the generally accepted position:

- All types of machine must be considered for fire protection not just grinding machines.
- Grinding machines remain at high risk of fire as do EDM machines but turning machines of all types are the largest single category of machine type that employ automatic fire protection systems.
- If any machine is run unmanned then an automatic fire protection system should be fitted.
- If any machine is using oil then it must have a fire protection system fitted to it.
- Any machine, even when cutting "dry," must have an adequate fire prevention system fitted to it when machining hazardous materials such as titanium and magnesium alloys whereby Argon Gas and not the more widely used CO_2 is then required for fire suppressant purposes.

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