



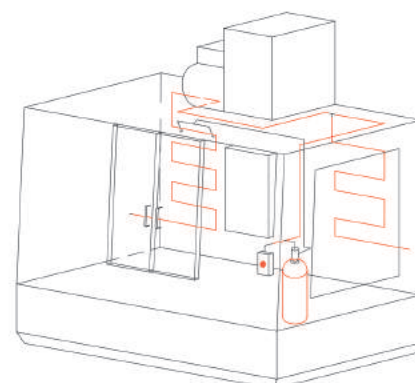
FSH DIRECT **FIRE EXTINGUISHING SYSTEMS**

Whether it is oil-based or dry running, fire in a CNC/EDM machine can take place at any time due to several factors. The high level of heat produced by the machines while running must be considered along with the possibility of electrical faults. In some instances, CNC/EDM machines run lights-out to increase productivity. While this may seem efficient, the lack of on-site supervision greatly increases the risk of a disastrous outcome if the fire proliferates beyond manageability.

Because CNC/EDM machines are so expensive, they should be safeguarded by the highest quality in fire protection equipment. If a company loses a machine due to a fire, money is lost in the need to replace it along with the profit loss that an otherwise running machine would be generating.

FSH DIRECT BASIC series is the high quality fire suppression solution for these CNC/EDM machines. The **FSH DIRECT BASIC** series is a fully automatic fire suppression system using advanced pneumatic detection tubing technology; a pipe network and nozzles geared for optimal fire extinguishment. **FSH DIRECT BASIC** series utilizes Novec™ 1230 Fire Protection Fluid, which is stored as a liquid and converts to vapor at discharge.

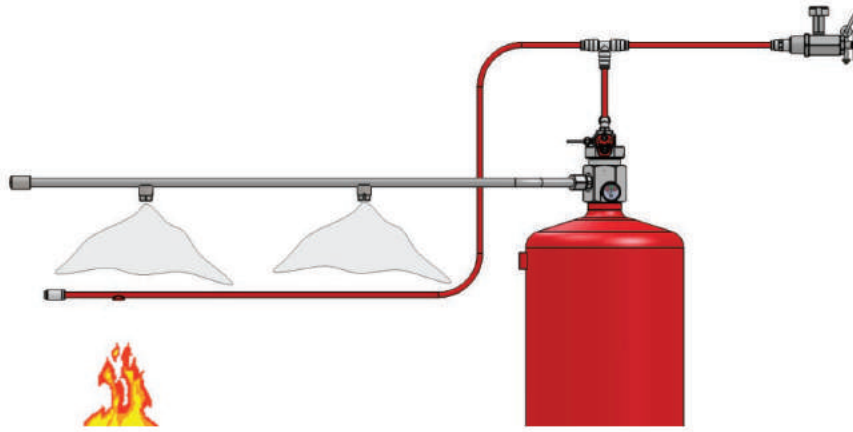
Novec™ 1230 fluid is the safest and most environmentally friendly clean agent in the market. It is electrically non-conductive, leaves no residue, and is very low in toxicity.



The Pneumatic Detection Tubing (shown in red) provides focused fire detection over areas of risk, while the nozzles and pipe network provide total flooding coverage inside the machine.



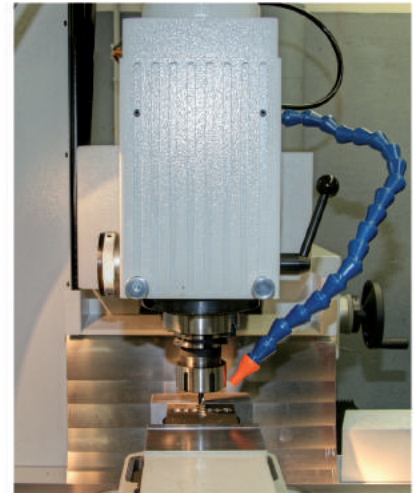
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AUTONOMOUS FIRE EXTINGUISHING SYSTEMS



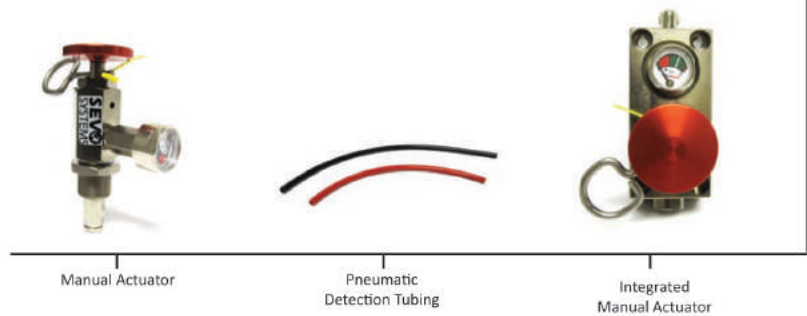
FSH DIRECT FIRE EXTINGUISHING SYSTEMS

The **FSH DIRECT BASIC** series offers two options in CNC/EDM protection: **FSH BASIC PLUS** pneumatic version or electrical, both utilizing a pipe network and nozzles. The advanced pneumatic detection tubing is pressurized at 240psi (16.5 bar) and has a burst point of 248°F (120°C) or 356°F (180°C), which allows for a higher evaporation rate and faster discharge/extinguishing time over traditional 195psi systems.

The tubing is routed through the CNC/EDM machine for optimal detection, and will burst at the rated temperature if a fire should occur. Once this happens, the Novec™ 1230 fluid is discharged through the pipe network and out of the nozzles for rapid extinguishment. The **FSH DIRECT BASIC** series also offers an electrical option, **FSH DIRECT BASIC MAX**, which offers selections of linear heat wire (multiple temperature options), smoke detectors, or air sampling equipment rather than pneumatic tubing. When one of the above options detects heat or smoke, a signal is sent to the system which then discharges through the pipe network and nozzles. A pressure switch is available for system monitoring or equipment shutdown, and is recommended to prevent the chance of re-ignition.



Compatible components



Manual Actuator

Pneumatic
Detection Tubing

Integrated
Manual Actuator



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