

PREPARED FOR, CLIENT NAME HERE

By Sales Rep Name Here

 **FIRETRACE**[™] | International


A Halma company

Did You Know?

\$50 Billion

Machine shops over lose \$50 billion annually from unplanned downtime delays

40%

of machine shops that close due to a fire never reopen, and of those that do, 30% of these shops fail within three years

20%

of all CNC machines are running oil-based coolant

76%

As of 2017, 76% of manufacturers reported having automation in the works in their shops, which includes unattended machining

Risk Factors for CNC Fires?

**OIL-BASED
COOLANTS**

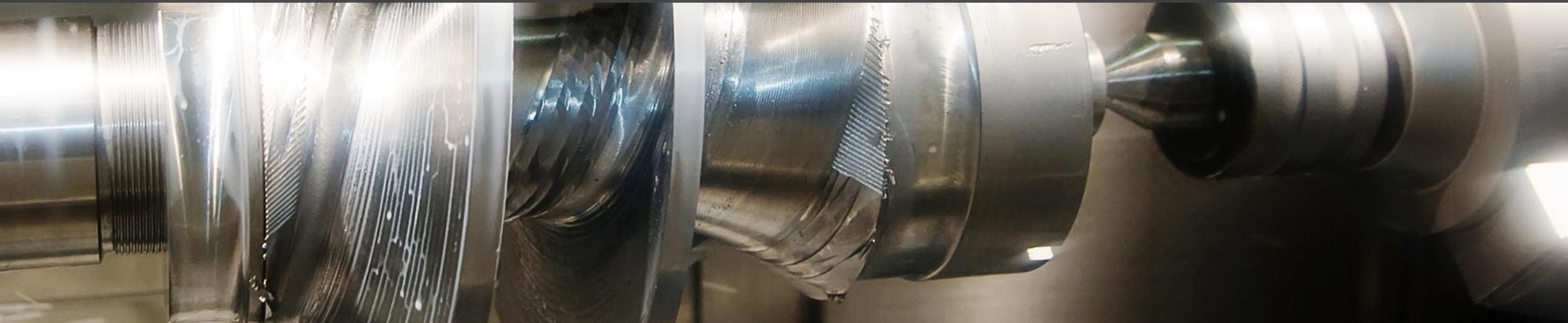
EXOTIC METALS

i.e. Magnesium,
Titanium

**LIGHTLY
ATTENDED
OPERATIONS**

**HIGH SPEED,
PRECISION
OPERATIONS**

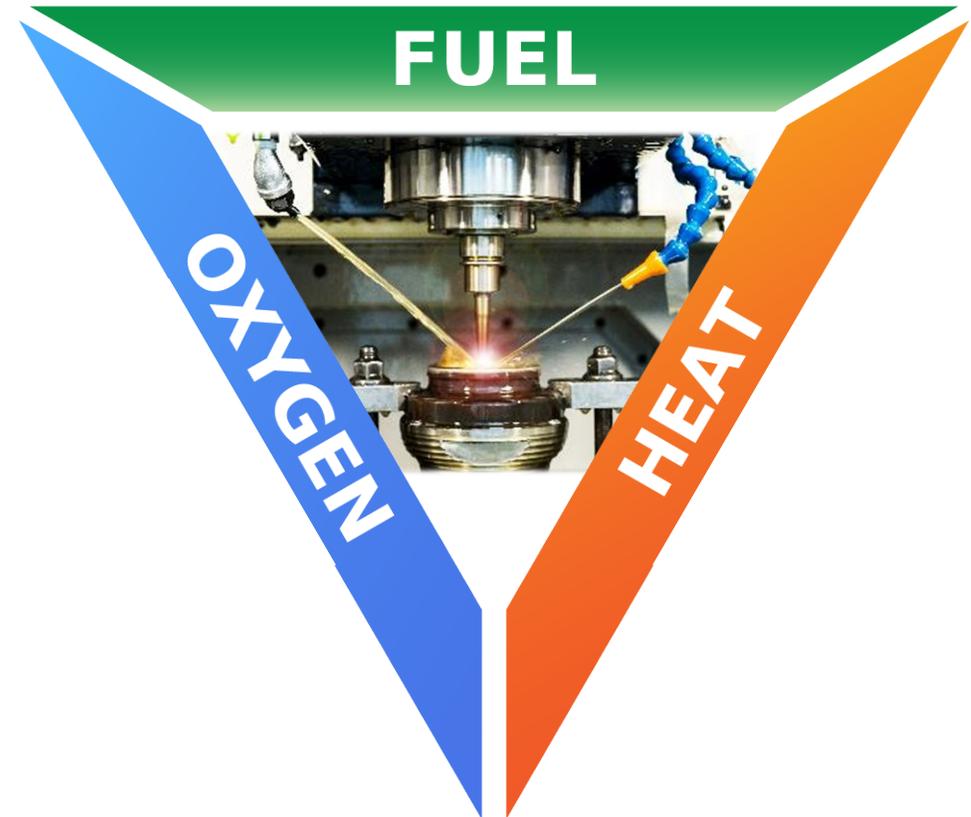
Medical, Aerospace
Automotive, Firearms



What Causes the Risk?

Understanding the Fire Triangle

For a fire to start you need 3 things: fuel, oxygen, and heat. In a CNC machine running oil, you have two of the three. All that is needed is an event to occur that generates enough heat or a spark to ignite.



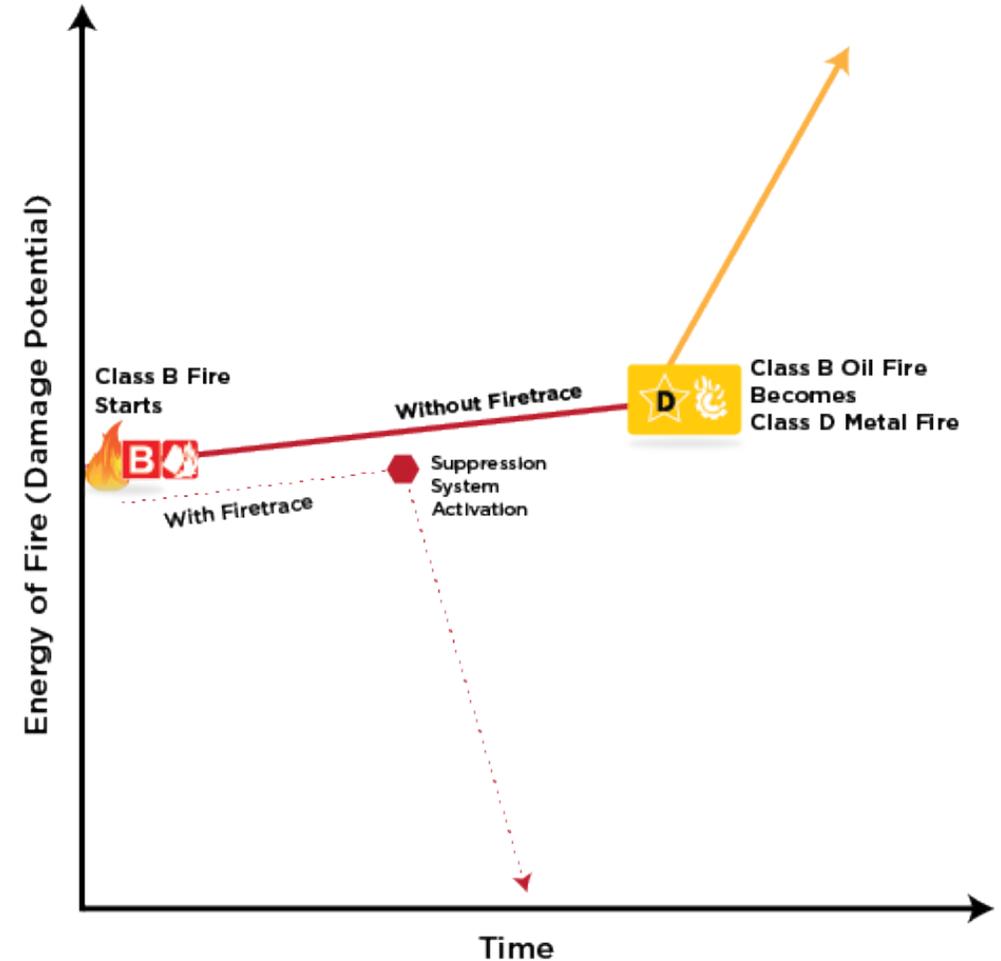
The Class Matters

The most common fires seen in machine shops are Class B fires, which are caused by a flammable liquid, i.e. oil-based coolant.

If these fires are suppressed quickly, damage and downtime can be minimized.

If not suppressed quickly, the energy builds and can create a Class D Metal Fire, which can be extremely difficult, if not impossible to put out without substantial damage.

Automatic fire suppression systems suppress Class B fires before a Class D fire has the chance to start.



Common Causes of Fires in CNC Machines are



Operator Error



Broken Tool



Metal Chips + Heat



Machine Malfunction

Weighing the Cost

WHAT IF YOU HAVE A FIRE WITHOUT FIRE SUPPRESSION?

\$250,000

Average CNC Machine Cost

4-8 weeks

Average Downtime in Fire Event

\$16,000

Downtime Cost/Shift (Assume 3 shifts, High-end shop)

\$336,000

Cost/Week

\$1.9M-\$2.9M

Cost of Fire Incident

Other potential costs: employee injury, loss of shop

Fire suppression systems on average are only 2%-4% the total cost of a CNC machine

PROBLEM

TOTAL FACILITY LOSS (Cleveland, OH)

100K sq. ft.
production
area

40
machines

\$30
million dollars



“You can have a fire at your machine shop. This machine shop lost \$30M of equipment, **plus they lost a couple of customers** because their plant was down and couldn’t produce parts.”

Olaf Tessarzyk, President of ZPS America

Why Are Leading Machine Shops Using Fire Suppression?



Protecting lucrative contracts - minimize downtime in case of a fire



Insurance rate reductions



Personnel protection



Protecting assets/equipment

EXISTING SOLUTIONS

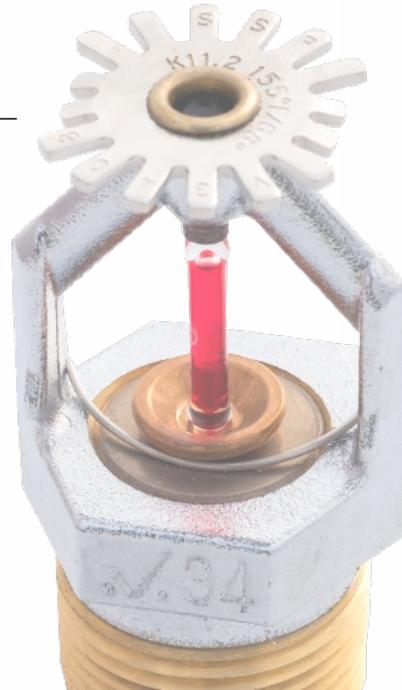
These products help organizations meet fire code, but may not be the most robust answer to fire hazards.

EXTINGUISHERS

(Manually operated)

SPRINKLERS

(No localized protection, can cause damage)



FIRETRACE SOLUTION

Firetrace is an automatic fire suppression system that provides complete protection for your business, people, and assets.

Rapid Detection:

Detects fires right at their source



Automatic Suppression:

No human intervention required



Safe for Equipment:

Clean agents leave no residue



Fast Installation:

Get complete protection in just a few hours



No False Alarms:

Ideal for harsh or dusty environments



24/7 Protection:

Independent of power and electricity

How it works

Firetrace detects fires rapidly using proprietary heat and flame detection tubing.



DETECT

Detection tubing can be installed anywhere a fire may start. The tubing is made of a proprietary polymer and will burst at 383°F or on contact with flame.



Factory Tested



UL Approved



How it works

The Firetrace system activates automatically, providing protection even in the absence of trained personnel.



ACTIVATE

When the detection tubing bursts, the pressure change in the system releases agent from the cylinder. Connect the optional pressure switch to shut down equipment or machinery.



How it works

Firetrace suppresses fires within seconds using clean agents that are safe for people, equipment, and the environment.



SUPPRESS

Firetrace systems use market leading clean agents Chemours FM200[®] and 3M Novec 1230[®] to eliminate heat and oxygen, starving the fire.



How Will Installing Automatic Fire Suppression Affect Your Machines?



Fast installation in half a day



Plug and play system

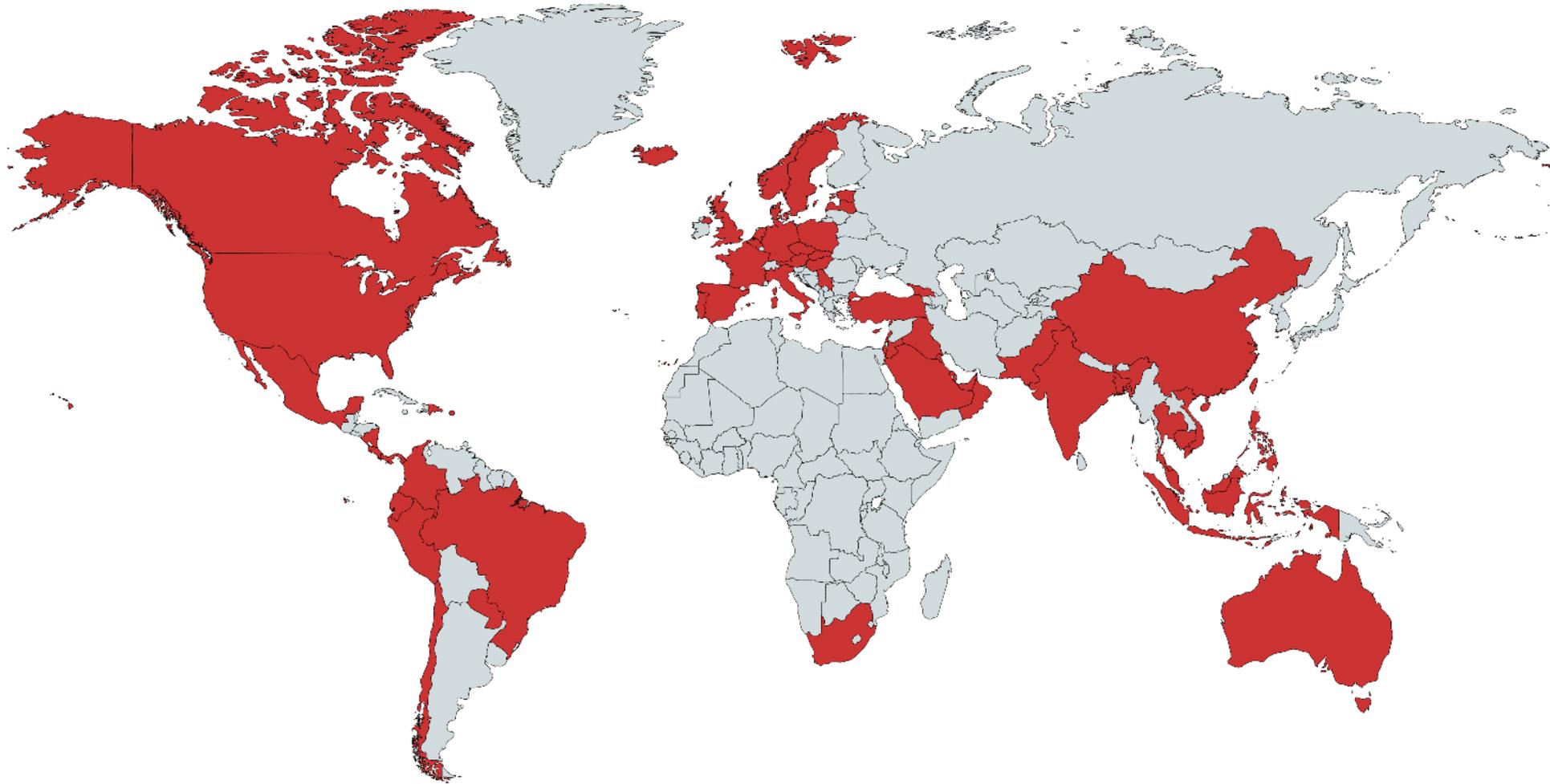


Shared service schedule with extinguishers



Clean agents are safe for equipment

Firetrace can be installed within hours by our global network of 500+ expert partners.



Appendix 1: Fire Class Flow Chart

