

# FOGMAKER

INTERNATIONAL AB

## Protect Lives and Equipment



## Fire Suppression for Construction Equipment

*Pure Performance with Triple Action*

# Safety shouldn't be a Compromise

## THE CHALLENGE...

Construction equipment typically contain large quantities of diesel fuel and hydraulic oils. If machines also operate in flammable environments, flammable material is often accumulated on the engine and can ignite.

Most fires in vehicles with combustion engines start in the engine compartment - a place where a fire may not be discovered until it is a blaze and almost impossible to suppress with a hand-held fire extinguisher.

In battery-electric vehicles, both thermal runaway and components can be fire initiators, and research presented at the 2023 FIVE conference shows 50-60% of EV fires never involve the battery itself. Fogmaker works through preventing a fire from reaching the battery, and if a battery should catch fire, the Fogmaker system cools it and gives time to evacuate. Machines with fuel cells have similar risks and a fire can lead to a devastating gas explosion. Here too, proactive fire suppression is needed.

## ...AND SOLUTION

Fogmaker has decades of experience in detecting and suppressing fires, and the system will provide the best possible fire protection performance if there is an emergency. The system is tailored to each machine model and energy source.

The specially formulated water-based mist protects engines, hydraulic components, and similar at-risk areas. **The system is always active, fully automatic, and independent of electricity.** It has a great cooling effect due to a long emptying time, and this prevents re-ignition.

The Fogmaker system has a large number of international certifications and our new Eco1 Fluid is 100% PFAS free and Greenscreen Certified at the silver level. Fogmaker's system with Eco 1 has been SBF127 approved with the same volumes as the Fogmaker Original fluid.

Find a distributor near you, or read more about the system on our website: [www.fogmaker.com](http://www.fogmaker.com)



"From 870 °C to 136 °C in 10 seconds!"



+870 °C  
0 sec

5 sec

+136 °C  
10 sec



Unique cooling effect; temperature reduction of 734 °C in 10 seconds!

Fire suppression test in a simulated engine compartment with a volume of 2,5 m<sup>3</sup>. The fire source consists of four 20 x 40 cm trays filled with diesel. Diesel spray is also applied at a rate of 2 liters per minute at a pressure of 5 bar. The heat effect reaches approximately 1,600kW. The pictures are taken with 2 second intervals. During the whole interval, 10 seconds, approximately 7 dl of suppressant is used.



# Fully automated, always active, and independent of electricity.

## Fogmaker Benefits



Choice between several piston accumulator sizes for greater flexibility.



System monitoring – activity, low pressure, and fire alarm.



Easy installation.



Low Life Cycle Cost – annual inspection, 5 year service, 10 year service.



Simplicity – no power supply, position independent, and requires minimal space.



Quality and environmental certifications. IATF-16949.



Triple Action<sup>3</sup> – attacks all three sides of the fire triangle.



Certified Partner and OEM training courses via Fogmaker Academy.



Automatic engine shutdown (optional).



Global network via Certified partners.

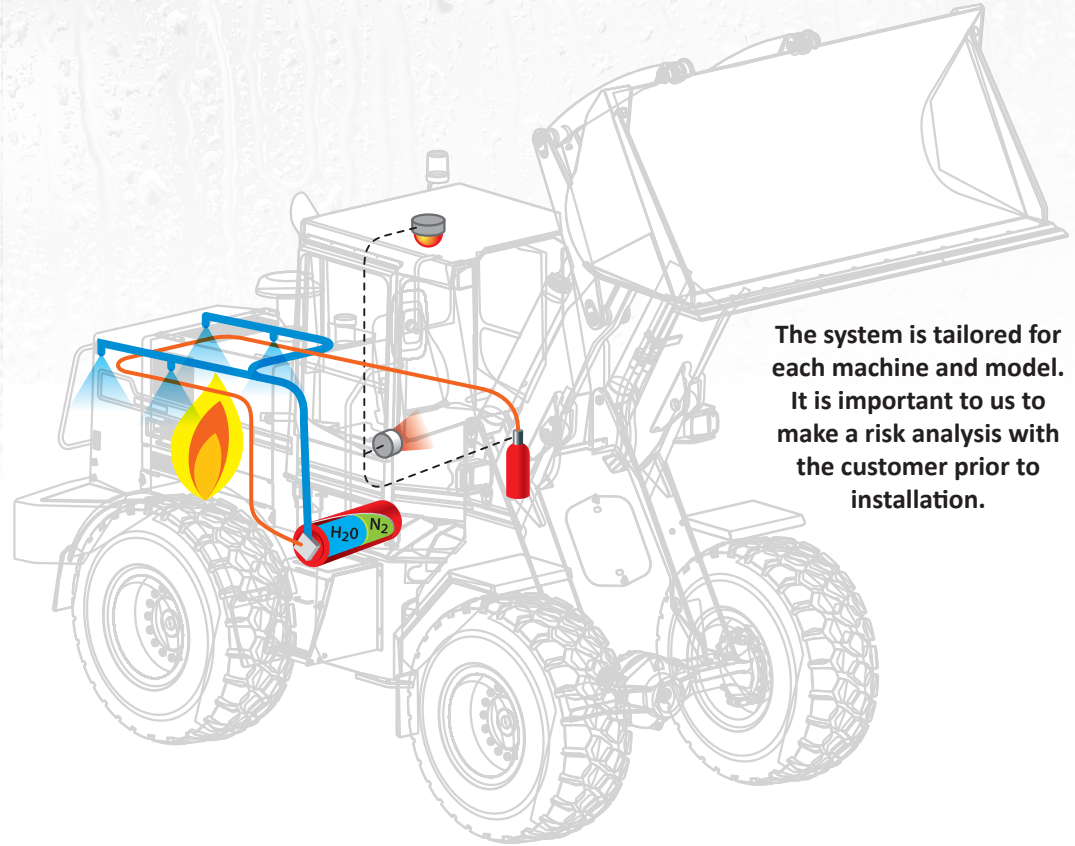


Great cooling effect and long emptying time, up to 90 seconds.



Free technical support.

Increased demands on reduced noise and emission of exhaust fumes have led to enclosed and more insulated engine compartments, higher fuel pressure, and increased engine compartment temperatures. Most fires start in the engine compartment and can be near impossible to extinguish with a hand-held fire extinguisher. Fogmaker protects lives and equipment, and gives peace of mind.



The system is tailored for each machine and model. It is important to us to make a risk analysis with the customer prior to installation.



### ACTIVE 24/7

The system is always ready. No power supply needed for activation or system monitoring.



### ROBUST SYSTEM

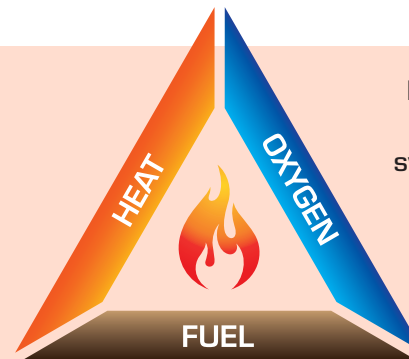
A solid system designed for tough environments.



### OUTSTANDING EFFECT

Cooling time at least double compared to other certified systems\* prevents re-ignition.

\*SP4912 method test result



Fogmaker's fire suppression system handles all three sides of the fire triangle: heat, oxygen, and fuel. The system deploys when the protected area becomes too hot, and sprays a water-based mist that expands and chokes the fire. The mist also cools the area for a long time - at least double compared to other certified systems\* - which prevents reignition.

\*Result of the SP4912 testing method

# THE IMPORTANCE OF SERVICE

The Fogmaker Fire Suppression System is designed to save lives and protect property. The system is sturdy and reliable, but requires regular service to ensure it will be deployed when needed. Service can only be done by accredited technicians.

Service intervals can vary depending on type of machinery, but most systems require an annual service, a five-year service, and a more extensive ten-year service. Some systems installed in heavy-duty environments may need to be serviced more often.

It is important to adhere to these intervals. If there is a fire, many insurance companies will not pay if the fire suppressing system hasn't been maintained. Also, Fogmaker gives a two-year warranty from the manufacturing date, but the warranty is void if the system hasn't been serviced.

Accredited technicians have gone through a course at Fogmaker Training Academy, and will be able to show an ID card or a certificate. If you need help finding a technician, visit [www.fogmaker.com](http://www.fogmaker.com) to find our partner in your country. They can help you locate a technician near you.

The Fogmaker system has a low Total Cost of Ownership, and following the service guidelines will ensure that your system will last and be reliable for many years to come.

You can budget for service, but not for a fire!

## SERVICE SCHEDULE

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### The Annual Service

Must be performed the first time within a year  $\pm 2$  months after installation date.

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### Five Year Service

Five years after the manufacturing date. The service includes replacement of fluids and pressure gauge.

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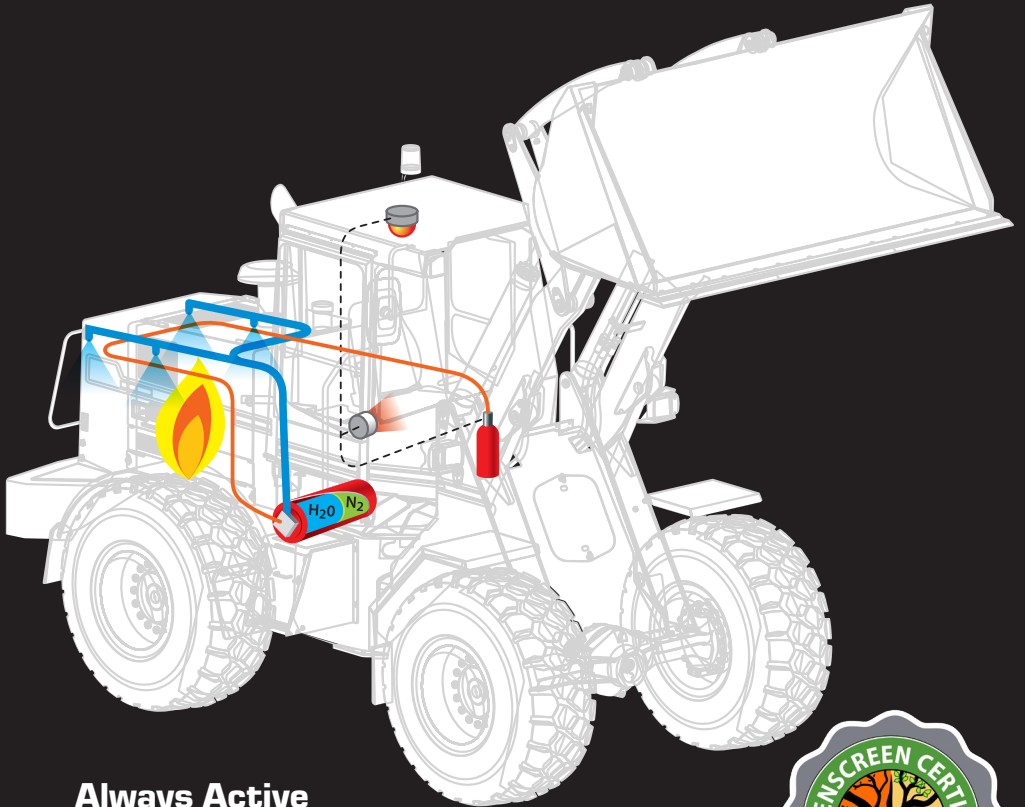
### Ten Year Service

Ten years after the manufacturing date. During this service, items like detector bottle and gaskets are replaced.



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## Always Active

The Fogmaker fire suppression system is robust and made for tough environments. It is position independent, automatic, and always active - no power supply is needed for activation or system monitoring.



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