



Fire Suppression Systems - industrial machinery

Most vehicle fires start in and around the engine and its compartments. Therefore, it is essential to always keep the machine clean from oil, dust and dirt. A tested and certified fire suppression system in combination with efficient fire detection, is the best first response in case of an emergency.

Fires in combustible engines

Automatic fire suppression systems react to a rapid rise in heat, or fire situation, without any human intervention. The liquid agent will push away the oxygen, cool down the overheated engine parts, impregnate the burning material. It is effective on fires with flammable liquids like petrol, diesel and hydraulic oils and with burning solids like wood, woodchips and peat.

Fire protection system for electric and hybrid vehicles

As of today, there are no successful methods to extinguish a battery fire that has already spread and entered the thermal runaway stage, following an overcharge or a collision. If the battery starts to burn, highly toxic gas emits hydrogen fluoride (HF), which can cause serious damage to both the skin and the respiratory tract.



Research is ongoing and there are systems on the market which can detect any temperature changes in the lithium-ion battery at an early stage and cool it down before reaching the critical “thermal runaway” state, which can result in the battery starting to burn and a fully developed fire occurring.

What to do:

- Make a risk analysis together with the manufacturer of the electric vehicle in order to protect fire, overcharging or damage to the battery and the vehicle.
- It is essential to always keep the electric vehicle well-maintained, clean from oil, dust, dirt and combustible material.
- Annually, educate all staff involved in handling vehicles, such as charging, battery risks and how to act in case of an electric or hybrid vehicle fire.
- Ensure that the battery charging area is clean, free from combustible material and located near an exit, so machinery and vehicles can be swiftly towed or moved outside. This is important especially regarding vehicles equipped with lithium-ion batteries.
- Keep up to date on the development of regulations and firefighting techniques against battery and especially lithium-ion battery fires.