Waterless extinguishing

With AF-X Fireblocker

Prevent fire damage
Secure business continuity
Prevent consequential loss

Safe, inexpensive

Prevent fire with AF-X Fireblocker

Fire may lead to enormous damage. To your people, company or organization and the environment. In fact, fire and its consequential losses can completely ruin your business. Did you know that over 60% of the companies that had to recover from a fire go bankrupt within three years? Do you want to prevent a fire from occurring? Safely, economically, and responsibly?

Use AF-X Fireblocker

Originally developed for protecting space travel, AF-X Fireblocker serves as a built-in fireman that swiftly extinguishes the fire with a dry aerosol. Without water, without gas.

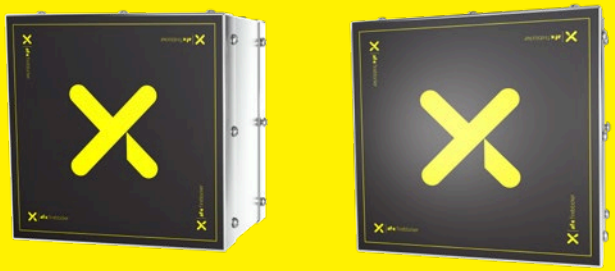
Therefore, there will be no fire damage, no water damage, and no consequential loss. It is harmless to humans, animals and the environment.

AF-X Fireblocker is unique

Most fires are the result of short circuits or overworked machines or equipment. Unseen. Unnoticed. Thus often discovered too late. The compact AF-X extinguishing systems block fire both in the room and at the source. Right at the seat of the fire, stopping the fire's self-reinforcing effect. By attacking the fire so effectively, this innovative system prevents a lot of potential damage.

Meet the family

> CXXS > CXS > CS > CM



> BXS > BS

> BM > BL

Once activated, the aerosol fire extinguisher initiate a reaction in which the released aerosol binds the free radicals.

The aerosol used in AF-X generators is Potassium-based (K), which binds more quickly with the unstable free radicals O (oxygen) and H (hydrogen) than a fire reaction. Forming stable products such as KOH (making unstable radicals stable). Due to the presence of CO_2, the KOH disintegrates into K_2CO_3, a stable white substance that is noncorrosive and poses no danger to humans, animals, and the environment.

This action extinguishes fire without depleting the ambient oxygen content. The solid particles of Potassium based (K) have a particle size of less than two ppm (parts per million) and remain in suspension in the protected room/enclosure for at least 30 minutes, preventing further re-ignition of the fire.

Extinguishing is achieved.

By two reactions:

- **> Physical**
- **> Chemical**

Physical

By absorbing the energy needed for the chemical reaction, it results in a cooling effect.

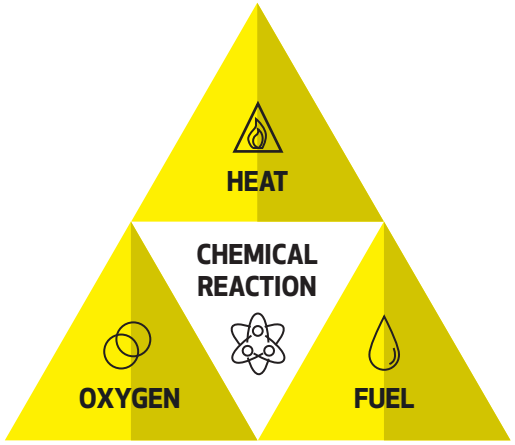
Chemical

The instable radicals (OH) react with Potassium (K) quicker than the fire-reaction and create a stable potassium hydroxide (K_2CO_3).

A fire is a chain reaction between

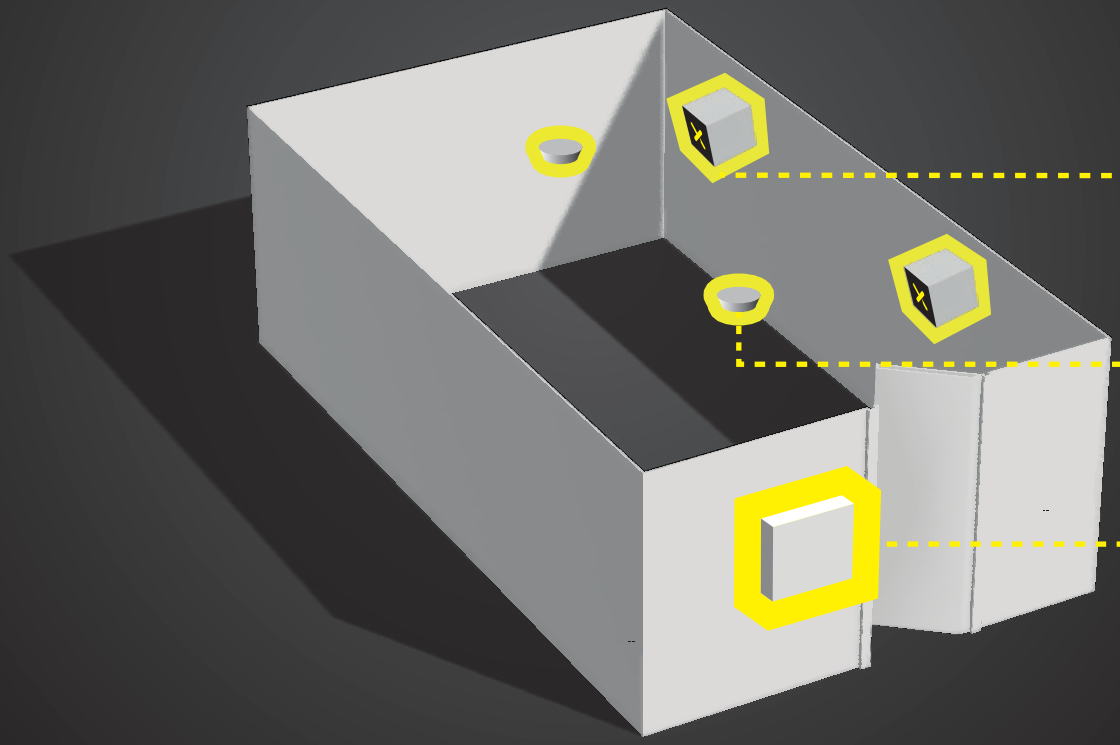
- > Heat
- > Fuel
- > Oxygen

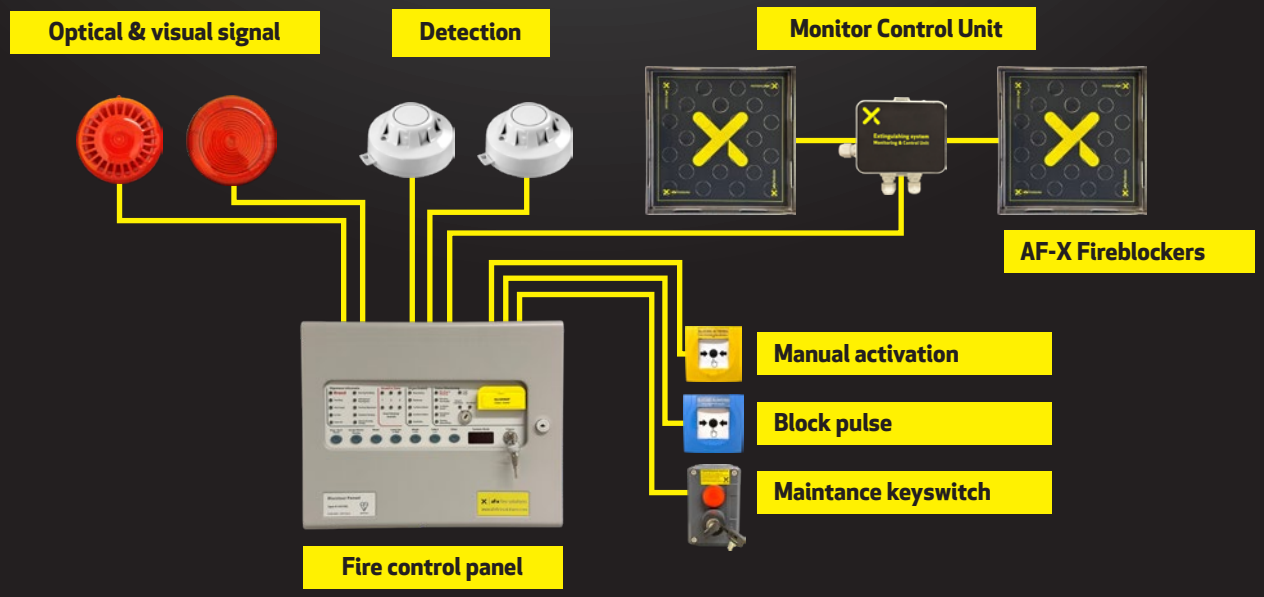
So break the chain!



Let's implement

These three elements are essential





AF-X Fireblocker

The AF-X Fireblocker extinguishing system utilizes an aerosol compound to extinguish the fire. Extinguishing with an aerosol is rapid and very effective in suppressing fire without damaging the present equipment or processes. The extinguishing takes place at a molecular level by binding and stabilizing oxygen molecules and absorbing the energy (heat) present in the flame. AF-X Fireblocker is non-corrosive and environmentally friendly and is safe for humans and animals

Detection

To quickly detect a fire, detection systems are installed in the space. In a given space, detection can occur through various means such as:

- > Smoke detectors
- > Thermal detectors
- > CO and thermal multi-detectors
- > H2 (Hydrogen) detectors
- > Or other external detection meganisms like Aspriration, Linear Heat detection, etc.

Fire control panel

A fire control panel is the hart of the extinguishing system and communicates between the detection and the extinguishing system. The panel will detect and respond in case of a fire by activating the AF-X Fireblockers and sounding a alarm.

Or it can be as simple as this

Connect your bi-metal detector to a Fireblocker to protect engines, switch boxes, batteries, and much more.

The main advantages of AF-X Fireblocker

Easy to implement, so less costs

AF-X Fireblocker is more economical than any other system. The use of a dry compound instead of water or gas makes the system incredibly compact. Therefore, constructional provisions are not required. No need for a mains system, as is required for sprinkler and mist systems. The maintenance costs are substantially lower than for traditional systems. On top of that the system is modular and has a lifetime of 15 years. The total costs of ownership are therefore low.

Gasless, so safer

AF-X Fireblocker is not based on pressure or gas, nor does it take away oxygen. AF-X Fireblocker is therefore a lot safer than CO2 or gas-based extinguishing systems. Moreover, the system's simplicity enables quick installation.

Waterless, so less damage

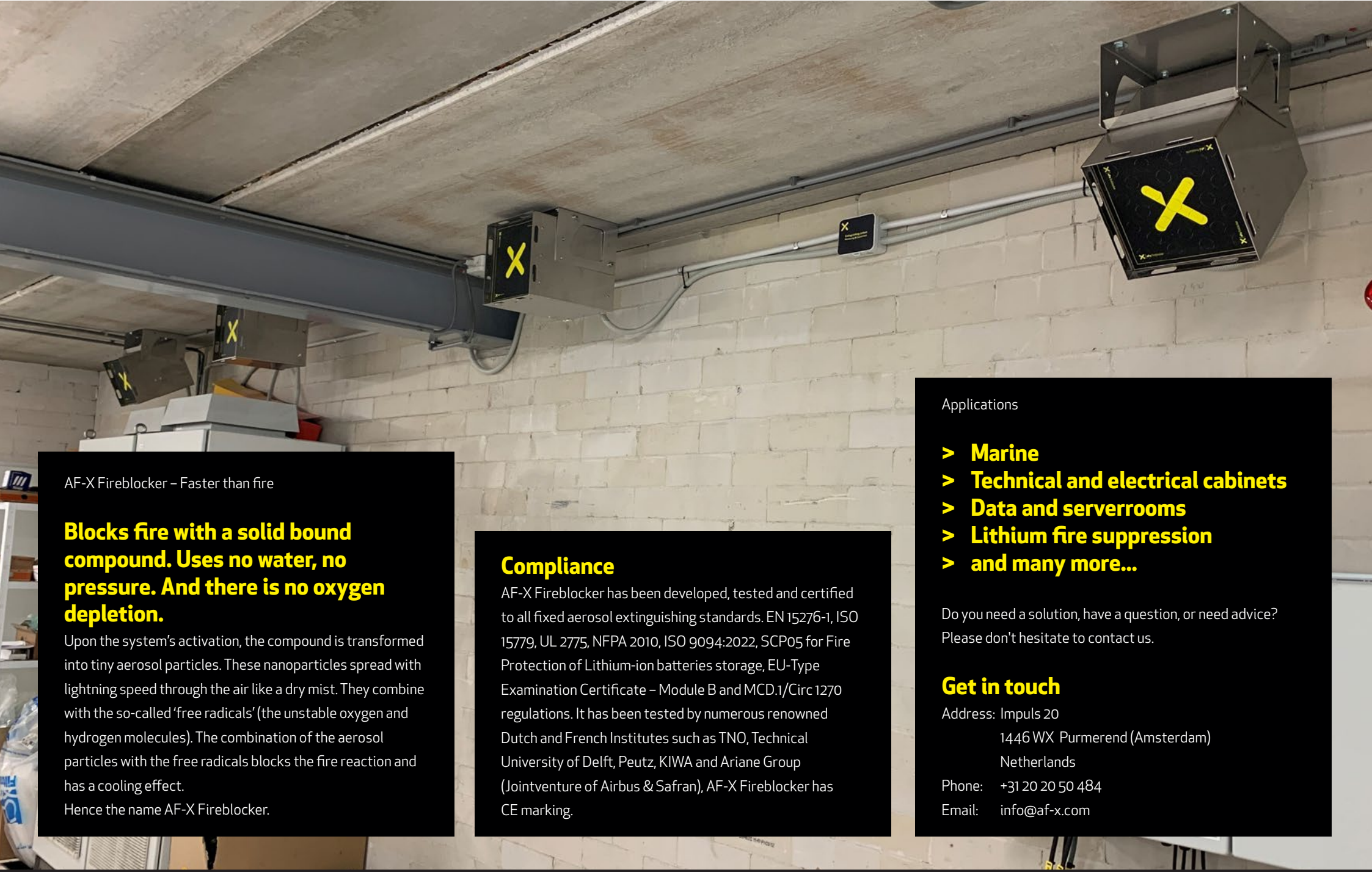
AF-X Fireblocker is based on a aerosol, rather than water. This results in a number of important advantages. The fire does not spread as rapidly and the risk of floating fire is averted. Furthermore, your equipment, storage and goods will not be affected by the fire extinguishing water. Last but not least, there will be no pollution of the surface water. You are saving the environment and preventing enormous insurance claims.

Modular, so flexible

The system's modularity offers yet another advantage: the system can follow your movements, e.g. when an area's use changes or when you prefer to protect another area.

Totally responsible and environmentally friendly

AF-X Fireblocker has a great number of advantages regarding the environment. For instance, there is **no CO2 emission, no PFAS, no HFC'S, no CFC's, no Fluorides** and it is ozone-friendly. Furthermore, it issues no other environmentally unfriendly substances. In other words: it is completely harmless to humans and the environment.



AF-X Fireblocker – Faster than fire

Blocks fire with a solid bound compound. Uses no water, no pressure. And there is no oxygen depletion.

Upon the system's activation, the compound is transformed into tiny aerosol particles. These nanoparticles spread with lightning speed through the air like a dry mist. They combine with the so-called 'free radicals' (the unstable oxygen and hydrogen molecules). The combination of the aerosol particles with the free radicals blocks the fire reaction and has a cooling effect.
Hence the name AF-X Fireblocker.

Compliance

AF-X Fireblocker has been developed, tested and certified to all fixed aerosol extinguishing standards. EN 15276-1, ISO 15779, UL 2775, NFPA 2010, ISO 9094:2022, SCP05 for Fire Protection of Lithium-ion batteries storage, EU-Type Examination Certificate – Module B and MCD.1/Circ 1270 regulations. It has been tested by numerous renowned Dutch and French Institutes such as TNO, Technical University of Delft, Peutz, KIWA and Ariane Group (Jointventure of Airbus & Safran), AF-X Fireblocker has CE marking.

Applications

- **Marine**
- **Technical and electrical cabinets**
- **Data and serverrooms**
- **Lithium fire suppression**
- **and many more...**

Do you need a solution, have a question, or need advice? Please don't hesitate to contact us.

Get in touch

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