

**Marioff HI-FOG® high-pressure
water mist fire suppression.**

**Fire protection for the
Automotive industry**

Flexible fire suppression for automotive manufacturing processes

The modern manufacturing processes in automotive factories present unique fire hazards, from handling flammable liquids to testing batteries. Heat generated by the equipment in these areas, as well as flammable liquids, make these spaces susceptible to fires – and perfect for the HI-FOG water mist fire suppression system.

The HI-FOG water mist fire suppression system offers fire protection for both your employees and your car manufacturing process. A high performance and quality fire suppression system ensures minimal interruptions and downtime in the case of a fire. We help keep people and operations safe.

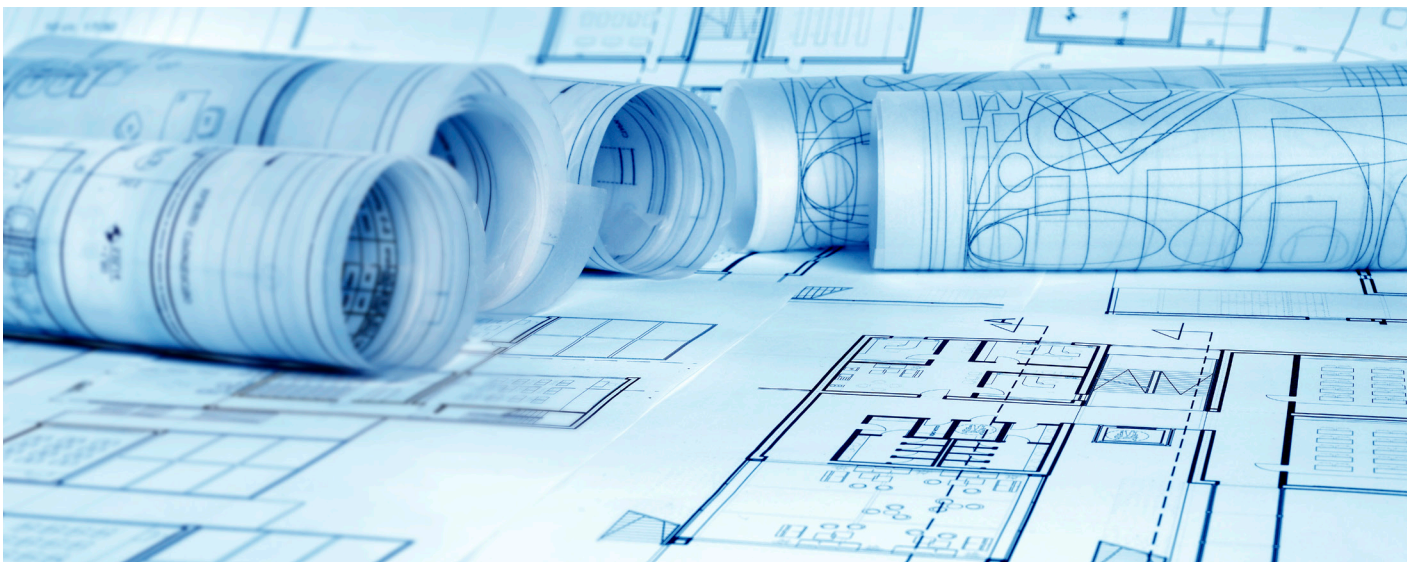
The HI-FOG system can easily be installed in new buildings or integrated into an existing HI-FOG system. The fire suppression system can expand as your business grows.

HI-FOG provides fire protection for key production areas:

- Automotive paint lines
- Paint and solvent storage rooms
- Paint mixing rooms
- Engine and battery test cells

HI-FOG for key factory infrastructure:

- Administration areas
- Electrical and data rooms
- Control rooms
- Emergency generators
- Transformer rooms





Benefits of the HI-FOG fire protection system

With Marioff, not only do you get a high-quality fire protection system, but also a complete end-to-end solution with professional support every step of the way, from design and turnkey deliveries to upgrades.

The HI-FOG system offers four main benefits:

Production continuity

The system controls and suppresses fire by discharging a fine water mist at high velocity, causing significantly less water damage than conventional sprinkler systems.

Safe for personnel

The HI-FOG system has been designed to protect both equipment and personnel without hindering operational processes or harming the environment. The system uses pure water, so it is safe to use.

Flexible system design

Once the HI-FOG is installed to protect the core production areas, you can easily extend the system to protect other spaces in the facility or new and additional process equipment.

Proven performance

Thousands of full-scale fire tests performed on our products ensure that the performance of HI-FOG systems is top-quality. The HI-FOG system has received over a hundred type approval certificates for a wide range of applications.

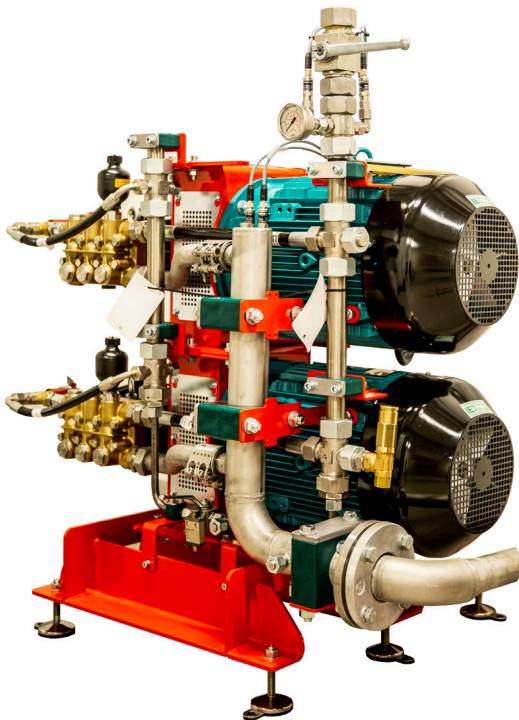
Tested and type approved fire protection system

VdS has established a standardized full-scale fire test procedure for high-pressure water mist systems used in paint lines. Marioff's research and development teams have been involved in this development from its early stages and have designed a system that reaches the expected level of fire protection performance.

The HI-FOG system has demonstrated its performance in full-scale fire and product tests to obtain type approval. We can also help you protect other process and administration areas found in the automotive factory with VdS type approved systems.

A major advantage of the HI-FOG system in key production areas is its cooling effect. Heat generated by the equipment and the use of flammable liquids make many spaces susceptible to fires. A minor malfunction or a leak can quickly lead to a fire. The HI-FOG system discharges a very fine water mist that blocks radiant heat and absorbs heat efficiently through evaporation.

The HI-FOG system activates fast. It can activate while the building is occupied, protecting people and ensuring business continuity simultaneously. Most of the time, the system stays in stand-by mode where it consumes minimal power. Environmental impact during system testing and release is near zero, because the HI-FOG system suppresses fire with pure water mist.





Research:
Lithium-ion battery fire protection

Li-ion batteries in electric cars pose a new type of fire hazard to the industry. Research about energy storage systems report that high-pressure water mist performed better than other technologies in fighting Li-ion battery fires. The HI-FOG system has been full-scale fire tested in several Li-ion battery fire protection studies and development projects.

Our broad range of the HI-FOG systems and experience in fire testing enable us to design and install high performance water mist fire protection systems for your Li-ion battery test cells.

Your safety is our expertise

As the pioneer of water mist fire protection technology, Marioff has experience in installing fire protection systems for new or existing automotive processes.

Today, the HI-FOG systems are used in numerous automotive manufacturing plants in Europe, the Americas, Asia and Africa. The automotive water mist fire suppression system is often used to protect engine test cells, electric car R&D laboratories, climate chambers and vehicle component manufacturing, as well as paint shops – including automotive paint lines and rooms with flammable liquids.

One of the examples is the HI-FOG fire protection of the Geely Group manufacturing plant in Cunniao, China. Geely's paint shop is protected by a HI-FOG MSPU 5+1 system with 30 section valves and almost 300 spray heads. Geely and Marioff worked together to ensure a high-quality solution that meets industry requirements.

“ Marioff has an extensive list of references when it comes to paint lines. Geely is proud to have a HI-FOG fire protection system in line with other main global car manufacturers.

According to the local regulations, CO₂ extinguishing systems shall not be applied in the painting lines where people are working.”

– Mr. Du HX, Senior Purchasing Manager, Geely



Marioff has been working for years with leading car manufacturers to safeguard their critical production. Long co-operation with them has led to standardized HI-FOG water mist fire protection systems becoming a well-recognized solution in the industry.

Lifetime support

Marioff-certified service engineers help you to maintain your HI-FOG system and to operate it economically – from commissioning to upgrades and extensions. They train, operate and maintain HI-FOG systems according to applicable FM and VdS Approvals, NFPA Standards and local requirements. Your personnel can also get custom-made training programs to deepen and refresh their knowledge of the system.

Every hour of every day, our dedicated service call center reacts promptly to your needs and provides quick action. As the original manufacturer of core HI-FOG components, we offer an extensive spare parts availability. Our strategically-placed and well-stocked service hubs make it possible for us to deliver spare parts fast.

We are at your service all over the world.

Marioff is a leading developer of water mist fire protection technology and supplies system solutions worldwide. The company's innovative HI-FOG water mist fire protection system controls and suppresses fire using significantly less water than conventional sprinkler systems, reducing water damage, cleanup time and operational downtime. For more information, visit www.marioff.com.



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Your safety is our expertise.