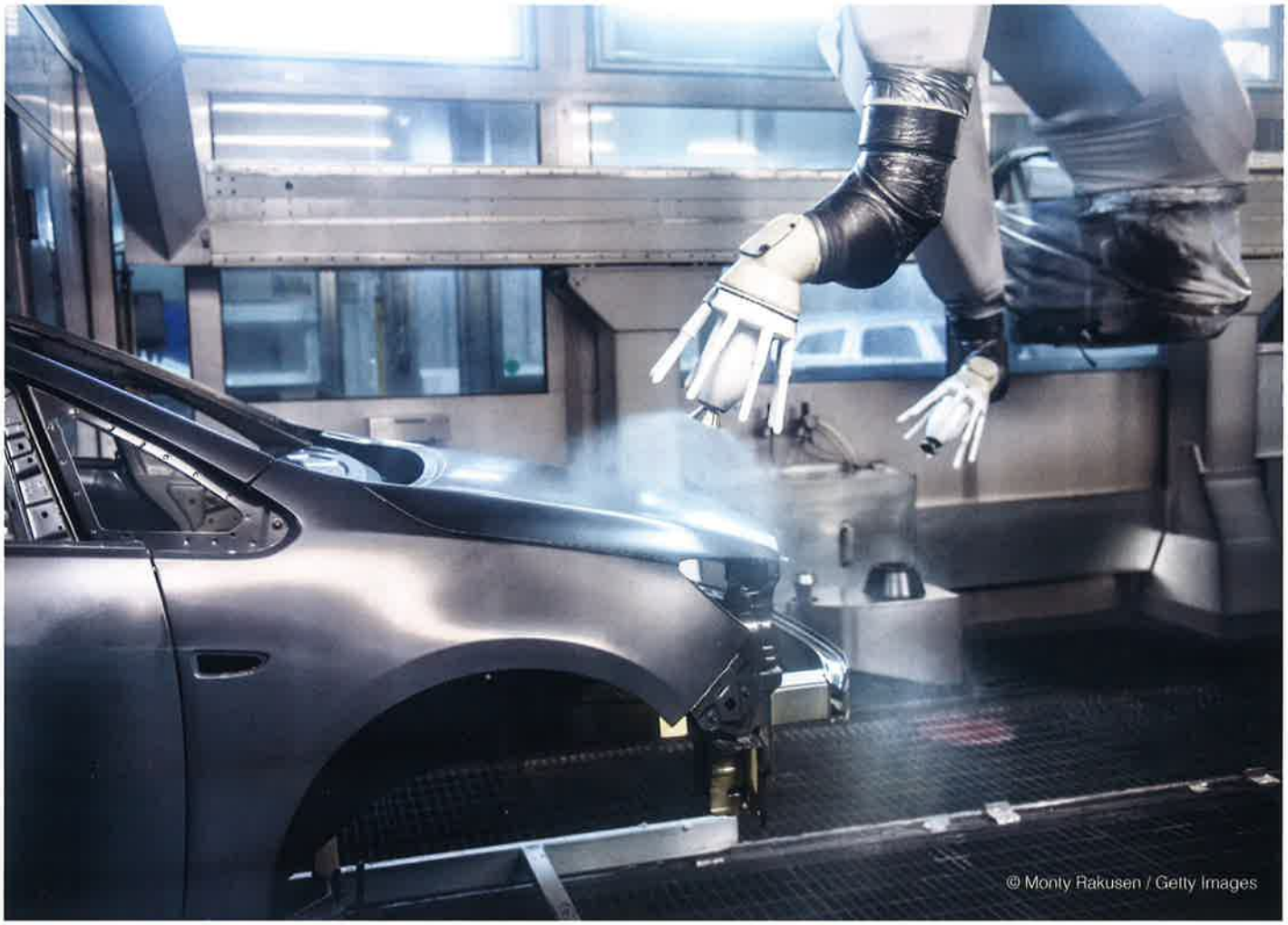
HI-FOG®
water mist fire protection

Protecting the Production Flow

HI-FOG® for Automotive Industry



Marioff
United Technologies

Ensuring Business Continuity in the Automotive Industry

The automotive manufacturing process is highly automated and efficient by nature. Multiple process functions are continuously available and synchronized. A high performance and quality fire protection system ensures minimal interruptions and downtime in the case of a fire. HI-FOG® water mist fire protection systems are designed to protect the core functions of the manufacturing process, thus ensuring business continuity for automotive factories.





HI-FOG® for Key Production Areas:

- Paint lines
- Paint and solvent storage rooms
- Paint mixing rooms
- Engine test cells

HI-FOG® for Key Factory Infrastructure:

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

Choosing HI-FOG®

HI-FOG® provides a safe and effective VdS type approved solution for the fire protection of unique hazards found in the automotive factories such as paint lines, paint mixing and storage rooms, engine test cells, auxiliary operations and administration areas. Heat generated by the equipment in these areas as well as flammable liquids make these spaces susceptible to fires. A minor malfunction or a leak can quickly turn into a serious fire.

Marioff's broad range of type approved systems and experience in fire testing enable the company to design and install high performance water mist fire protection systems for these hazards.

Using Water Effectively

One of the major benefits of the HI-FOG® system is that it can be activated immediately, at the very moment a fire is detected. HI-FOG® limits the risk of both fire and water damage, which is critical for business continuity.

The pure water mist of HI-FOG® ensures personnel safety. It poses no danger to people; a false alarm and the discharge of mist is not a health hazard. HI-FOG® system can be instantly reset for operation after a fire, whereas gaseous systems would require resetting and refilling of the extinguishing agent.

Another major advantage of HI-FOG® in key production areas is its cooling effect. HI-FOG® discharges a very fine water mist that blocks radiant heat and absorbs heat efficiently through evaporation.

VdS Type Approved System

VdS has established a standardized full-scale fire test procedure for high pressure water mist systems used in paint lines. Marioff has been part of this development and has designed a system that reaches the expected level of fire protection performance. HI-FOG® has demonstrated its performance in full-scale fire tests, including component tests in order to obtain type approval. Other process and administration areas found in the automotive factory can also be protected by VdS type approved systems.

Flexible System Design

Once HI-FOG® is installed to protect the core production areas, the possibilities do not end there. The HI-FOG® system can easily be installed in new buildings and paint lines, and can be integrated into an existing system. One centralized VdS type approved electrical pump unit can be used to protect other areas, such as manufacturing plant offices, electrical and data rooms and emergency generators. It goes without saying that HI-FOG® system can expand with the business.

> *"According to the local regulations, CO^2 extinguishing systems shall not be applied in the painting lines where people are working."*
>
> – Mr. Du HX, Senior Purchasing Manager, Geely

HI-FOG® for automotive industry

» *At a Glance*

Production Continuity
HI-FOG® uses water effectively. Fast activation brings fire under control quickly with a minimal amount of water. HI-FOG® limits the risk of both fire and water damage which is critical for business continuity.

Safe for Personnel
The fire protection solution needs to protect both personnel and property. HI-FOG® uses pure water allowing immediate activation in the event of a fire.

Flexible
HI-FOG® is modular. It can be extended when new or additional process equipment is installed.

Proven
HI-FOG® has demonstrated its performance in full-scale fire tests, including component tests in order to obtain the type approvals.


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Well-recognized solution in the industry
Marioff has protected numerous automotive manufacturing plants in Europe, Americas, Asia and Africa with its HI-FOG® water mist fire protection systems. Majority of the projects have been the protection of paint shops including paint lines and auxiliary rooms for example chemical storages and paint mixing rooms.

Marioff has also a track record on the protection of other types of fire hazards in automotive manufacturing sites such as engine test cells, climate tunnels and vehicle component manufacturing.

Marioff has successfully been working years with leading car manufacturers to safeguard their critical production. Long cooperation has led to standardized HI-FOG® water mist fire protection systems to become a well-recognized solution in the industry.

One of the latest examples is the HI-FOG® fire protection of Geely Group manufacturing plant in Cunxiao, China. Geely's paint shop is protected by HI-FOG® MSPU 5+1 system with 30 section valves and almost 300 spray heads. The system was installed in 2014. Geely and Marioff worked together to ensure a high quality solution that meets the 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."*
>
> – Mr. Du HX, Senior Purchasing Manager, Geely

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