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

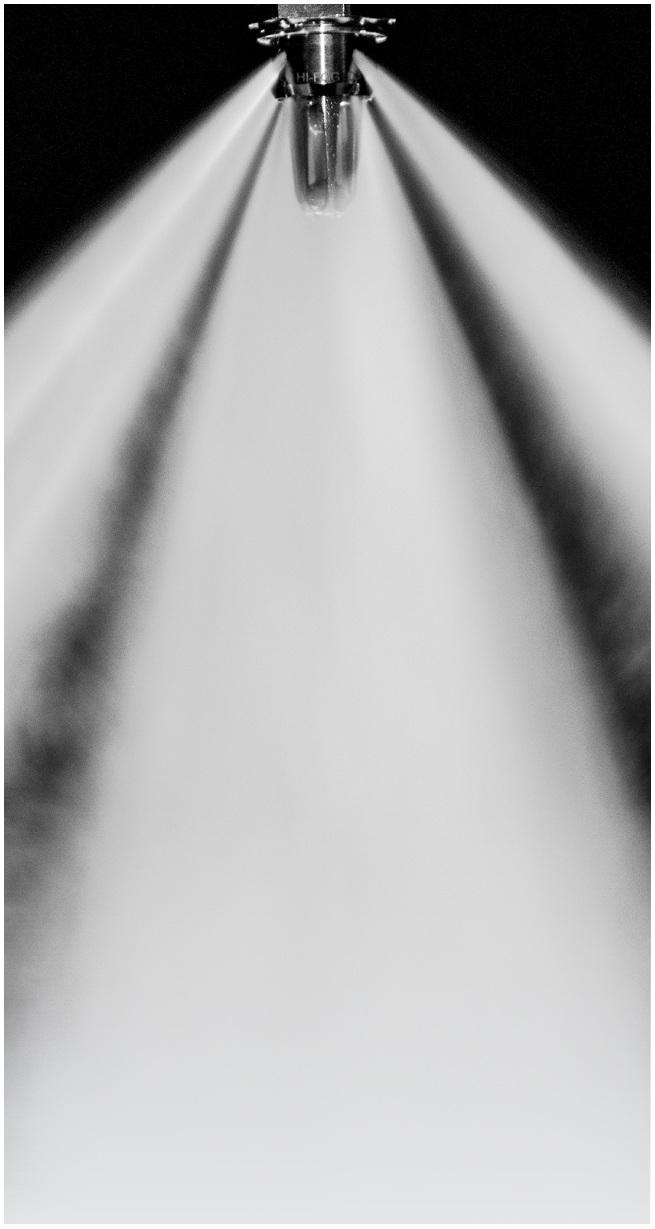
Fire protection for Cultural heritage

Minimizing fire and water damage

The generations of today are responsible for protecting irreplaceable historic sites and cultural collections for future generations. We help keep people and precious buildings protected from fire while providing peace of mind.

At Marioff, we have decades of expertise in designing, installing, and servicing fire protection systems for historic buildings like churches, heritage hotels, museums, theaters and more.

In cultural heritage sites, collateral damage can never be a secondary consideration. The HI-FOG high-pressure water mist fire suppression system controls and suppresses fire by discharging a fine water mist at high velocity, creating significantly less water damage than traditional fire suppression systems.



The HI-FOG solution protects all spaces in your historic building

- Exhibition galleries
- Domes/cupolas, attics, roof structures
- Auditoriums and conference rooms
- Offices, shops, and restaurants
- Lobbies and corridors
- Storage rooms
- Emergency generators

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:

Less fire damage

The HI-FOG system controls and suppresses fire by discharging a fine water mist at high velocity, creating significantly less water damage than traditional sprinkler systems. You can quickly resume operation after a fire.

Discreet fire protection

Because the HI-FOG system's tubing is low-diameter and lightweight, the solution preserves the aesthetic integrity of the building. As the system uses less water, it also needs a smaller water tank compared to traditional sprinkler systems.

Fast renovation

Low-diameter tubing makes it possible to keep the disruption to your operations at a minimum during the installation project. Renovation can be executed without shutting the whole building down.

Scalable

The HI-FOG system can protect the whole building and easily be expanded to cover any new areas of the building.

Unrivalled experience in heritage sites

The HI-FOG systems provide fire protection for many internationally renowned buildings, such as the St Patrick's Cathedral in New York City, US, the Bristol Old Vic Theatre in Bristol, UK, and the Duchess Anna Amalia Library in Weimar, Germany. Visitors can enjoy exploring these collections and buildings safely.

Bristol Old Vic, Bristol, UK

Built in 1766, this 18th century Grade 1 listed Georgian theater is the oldest working theater in the UK. The HI-FOG system was installed during a complete refurbishment of the theatre, with the tubing installed within the very tight spaces of the building fabric.

Throughout the building, the sprinklers had to be positioned to meet both the system design criteria and exacting architectural heritage constraints, especially within the auditorium's decorative ceiling, where the sprinklers have become a subtle and integral part of the pattern.

The Old Vic Theatre Project was an ongoing National Lottery funded refurbishment scheme. The client had originally planned to extend the traditional sprinkler system, but this was not practical for the fabric of the building because of the large pipe sizes that go hand in hand with that type of system.

The HI-FOG system protects the heritage part of the theater, which includes the seating areas, the Royal Box and the wooden beamed roof space, which is open to public viewing. Basement plant areas were also at a premium, making the installation of the modular MSPU4+1 pump unit, control panel and sectional water storage tank an ideal solution.

Bristol Old Vic

St. Patrick's Cathedral

St. Patrick's Cathedral, New York City, NY, USA

St. Patrick's Cathedral is the largest neo-Gothic style Roman Catholic cathedral in the United States and one of New York City's most famous buildings. Construction of the cathedral began in 1858, and it was opened after 29 years of work in 1887.

The HI-FOG water mist fire protection system was chosen to avoid the water damage risk of a conventional sprinkler system. "Protecting irreplaceable assets in the heritage site, the HI-FOG system offers fast control and fire suppression capabilities, while also minimizing the structural impact of the system's installation in this historic building," says Kate Monaghan from St. Patrick's Cathedral.

Oracle Sales Center, Amsterdam, the Netherlands

As a permanent location for Oracle's Cloud Sales Center in Amsterdam, Oracle has chosen a heritage building turned into the Oracle office. 450 employees work in the prestigious old warehouse (6,340 m^2) on the Nieuwevaart in Amsterdam, located in the UNESCO monument, part of the canal ring area of Amsterdam.

The Cloud Sales Center plays an important role in expanding Oracle's cloud business. The opening of the Cloud Sales Center and the recruitment of 400 new cloud sales professionals in the Netherlands follows a multi-billion-dollar investment in developing the most complete portfolio of cloud computing services. The scope of the fire suppression solution contains five floors of office space design based on VdS OH1, including the HI-FOG water mist monitoring system and fire detection, supplied by FireX.

Oracle Sales Center

Teylers Museum

Teylers Museum, Haarlem, The Netherlands

Teylers Museum, located in Haarlem, Netherlands, opened to the public in 1784. For centuries, this "Museum of Wonder" has been a hub for the exquisite and the strange, from art and fossils to imaginative contraptions and precious books. It is the oldest museum in the Netherlands, and a Dutch heritage site.

The Oval room, the historical center of the museum, stands as a stunning example of neoclassical architecture. Over the years, there have been several extensions, each designed with the sensibilities of their day.

Marioff partner FireX, developed and implemented the HI-FOG fire protection solution fed by an MSPU2 pump. The system was implemented with the ability to control fires locally. It will protect the art and book collections, instruments, coins and other precious items from already from the 18th century.

The high-pressure water mist system uses less water than a traditional sprinkler system, which minimizes damage in the event of a fire. The water is transported through small pipes that were retrofitted specifically for the site, and the system's sprinklers were selected for their ability to blend seamlessly into the historic interiors.

The Academy of Arts

The Academy of Arts, Berlin, Germany

The HI-FOG system was chosen to protect Berlin's renowned Akademie der Künste (Academy of Arts) from fire. After decades of use, it was decided that the building should be returned to its original condition while bringing the utilities, including fire protection, up to modern standards.

The Academy of Arts includes 2,000 square meters of exhibition area, a studio with a stage, two auditoria seating 700 guests, club rooms, apartments and art studios. The Academy archives includes 1,100 individual collections, a special library of 550,000 volumes and an art collection of 60,000 objects.

Where cultural heritage is concerned, reducing the chance of water damaging the precious collections was crucial. It was also important that the installation was largely unnoticeable. The HI-FOG system installation protects the Academy's exhibition areas and administration offices, as well as the special suspended ceilings in the theater.

> ***"We decided on a high-pressure water mist system because it needs less water. A further advantage is the smoke scrubbing effect. In smoky rooms it provides very fast, sufficient visibility, enabling safe evacuation."***
>
> *– Mr. Manfred Fischer, Director of Administration, Academy of Arts*

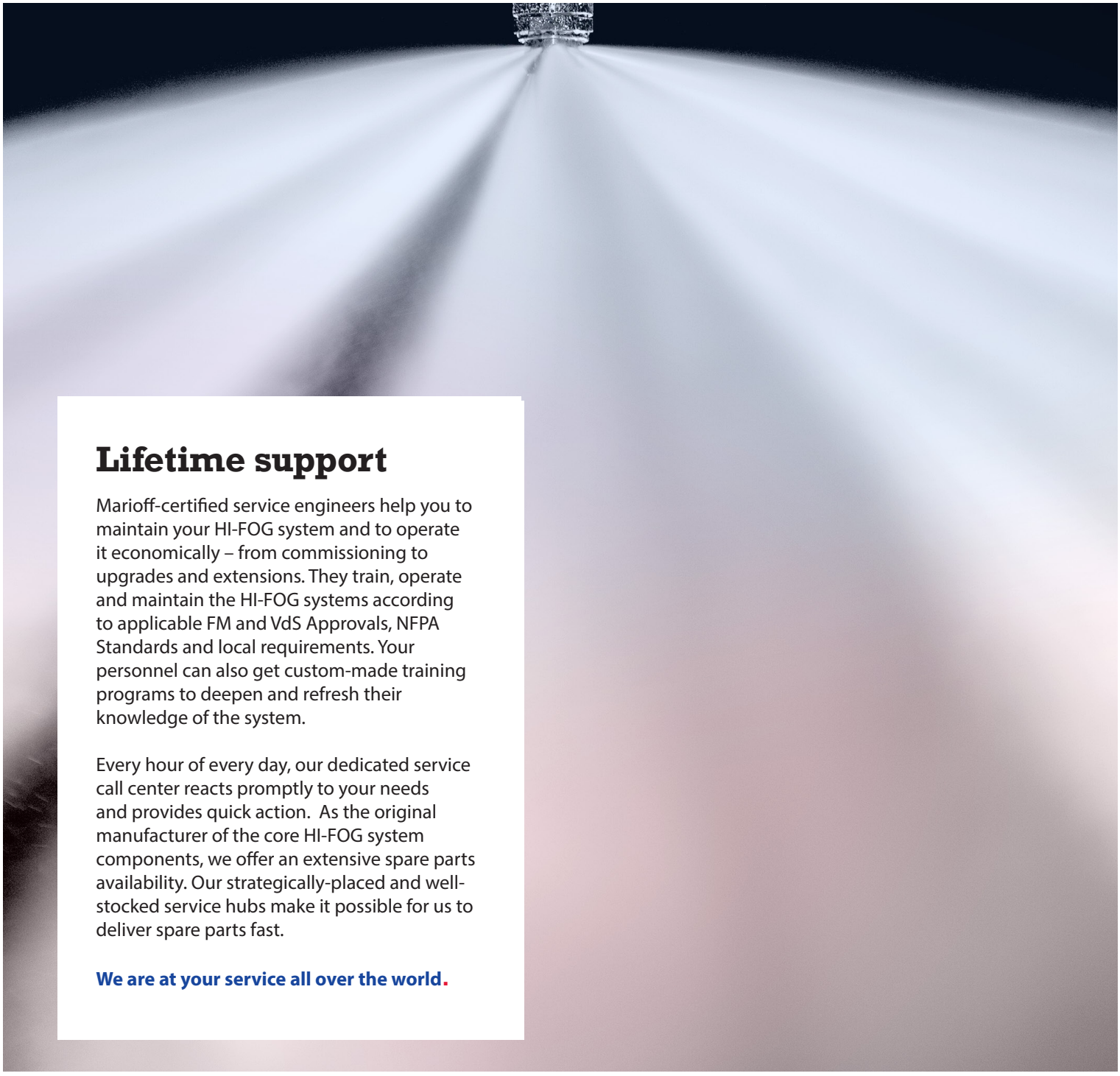
Duchess Anna Amalia Library, Weimar, Germany

The HI-FOG water mist suppression system protects the Duchess Anna Amalia Library, a UNESCO World Heritage Site, which houses a priceless collection of manuscripts, medieval autographs, incunabula and works of art.

The library experienced a catastrophic fire in 2004, which was caused by a mere electrical fault. The HI-FOG system was installed as part of the restoration work to protect the library's four floors, Rococo Room and tower.

The HI-FOG system was chosen because it would cause minimum collateral damage to the library's delicate collection upon activation. Secondly, the stand-alone system is independent of water city mains and the power supply is able to protect the library even during a power outage. Thirdly, the system could be installed unobtrusively thanks to small diameter piping. Finally, the pre-action system minimizes the risk of accidental discharges, as it activates only after a fire has been detected and the ceiling temperature is high enough to break the bulb.

Duchess Anna Amalia Library



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 the 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 the core HI-FOG system 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.