Marioff’s HI-FOG® fire protection system was chosen to protect Berlin’s renowned Akademie der Künste (Academy of Arts). Designed by architect Werner Düttmann and inaugurated in 1960, the building at Hanseatenweg 10 marked the completion of a residential estate created for the 1957 international architecture exhibition.

After decades of use, it was decided the building should be returned to its original condition while bringing the facilities, including fire protection, up to modern standards.

**Multi-faceted facility**

With 2,000 square meters of exhibition area, a studio with a stage, two auditoria seating 700 guests, as well as club rooms and apartments combined with art studios, the building at the edge of the vast Tiergarten Park is an ideal location for exhibitions, performing arts or music productions, film or video projections, readings and art discussion meetings.

An important element of the Academy is its archives. With 1100 individual collections, a special library of 550,000 volumes and an art collection of 60,000 objects, the Academy archives represent the most important interdisciplinary archives for 20th-century art in the German-speaking world.

**Challenge of the unknown**

The academy architecture presented a number of challenges for installing a new fire protection system that would meet the steep requirements placed on it.

"The ceilings had been hung, and nobody knew what was behind them," recalls Christian Nolden Project Manager at Marioff Germany. "The placement of the heads is crucial for effective smoke control." 

"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.”

Mr. Manfred Fischer, Director of Administration, Academy of Arts, Berlin
nozzles was tricky. We could not make detailed plans because we didn’t know how the cable trays ran or the support beams were positioned.”

The difficult assembly conditions meant that each HI-FOG® sprinkler had to be individually tailored. Thanks to the narrow HI-FOG® tubing and compact nozzles, the installation was successful. “In the end, the customer was very satisfied with our implementation,” notes Nolden.

System design
The HI-FOG® installation protects the Academy’s exhibition areas, administration offices, as well as the special suspended ceilings in the theatre. Designed in accordance with the European OH1 fire protection specification, the installation uses a wet pipe system dimensioned for a 60-minute discharge.

Wet pipe systems are typically used in spaces where solid materials are the combustible media. When ambient temperature exceeds a specified limit, the activation bulb of the sprinkler bursts and water mist is discharged from that particular sprinkler. This helps limit the number of activated sprinklers, reducing overall amount of water discharged.

The HI-FOG® system for the Academy uses a HI-FOG® Modular Sprinkler Pump Unit (MSPU). This type of unit uses a modular construction which makes it easier to install in spaces with limited access. The pump serves a tubing network with 12 valves and 1,000 sprinkler heads. Five 20 cubic meter water tanks supply fresh water.

The completed system was approved by authorised, third-party experts from Technische Prüfgesellschaft Lehmann mbH Berlin.

“It was important for us that the installation is largely unnoticeable.”

Mr. Manfred Fischer, Director of Administration, Academy of Arts, Berlin