

## Inspection and Certification Water Mist Systems



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Water mist protection has developed in the maritime sector and is increasingly applied in museums, hospitals, detention centres, offices, machine assemblies and data centres.

Water mist extinguishing protection works by forcing water through a nozzle (spray nozzle) under high pressure. This creates very small water droplets that have a strong cooling effect, absorb a lot of (fire) power and dissipate oxygen during the conversion from water to water vapour (inertisation). Water mist protection is classified into low, medium and high-pressure systems depending on nozzle pressure. In recent years, the emphasis has increasingly been placed on high-pressure water mist systems, up to 120 bar.

### **Performance Based**

Water mist systems are performance-based, where manufacturers determine the design guidelines based on test fires and, depending on the success of the test, whether to apply water mist protection. European and American standards exist for water mist protection. Compared to sprinkler standards these have a more generic nature and do not outline detailed projection and obstruction rules. Manufacturers have to demonstrate with approvals that their product is suitable for the requested application.

### **Inspection Certificate Water Mist Protection**

In a water mist system inspection, Kiwa R2B will therefore first determine whether the approvals apply to the object to be protected. In addition, structural, technical and organizational conditions are assessed. This way Kiwa R2B has a complete picture of the water mist system's effectiveness, can assess compliance and whether an inspection certificate for water mist protection can be issued.

### **Why Kiwa R2B?**

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Kiwa R2B is a leading Inspection Institution in the area of Fire Safety and Security (FSS), providing services with expertise, flexibility, customer-focus and innovative attitude. We conduct inspections and provide training maintaining our fully independent, unbiased and fair position.

Kiwa R2B operates in a wide range of facilities, including health care, tunnels, logistical, industrial, (petro) chemical, data centres, airports, storage of hazardous goods and hotels.

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