

## **Spanish Congress Palace in Madrid - A Challenging Project**

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### **The Author and Presenter**

Ruediger Kopp completed his studies of Chemical Engineering and Safety Engineering at the University of Dortmund as Diploma-Engineer. Since more than 25 years he is involved in development, fire testing, approval and marketing of high pressure water mist systems.

Ruediger is Managing Director for fixed water mist systems at the company FOGTEC Fire Protection based in Cologne, Germany. He is member of various international water mist guideline working groups (e.g. NFPA 750, CEN 14972, DIN 14972 APSAD D2, FIA/BAFSA) as well as foundation member of the International Water Mist Association (IWMA). He has published numerous articles about water mist technology and has held papers at many conferences around the world.

### **Abstract**

Fire protection in buildings, particularly in historical buildings, are key for their safe operation. Existing building structures often require improvement in this regard.

Conventional sprinkler systems can compensate missing fire partitions, but high pressure water mist offers extended cooling potential to rapidly suppress fires and additionally protect exposed building structures to secure safe escape routes for people, while using reduced water quantities and limiting water damages. The installation of the system in the heritage building structure is eased by small pipework and limited water storage.

The paper will describe the decision making process for a high pressure water mist system to protect the Spanish Congress Palace in Madrid and will detail the implementation of the water mist system in conjunction with the related full scale fire tests and the certification process. The solution to particular fire protection challenges in the wide open plenary hall will be explained.