

# Fire protection

## AQ900 case study

Underground train, fixed water misting

### Project

National Grid Tunnel, London, UK

### Fire risk analysis

As part of a National Grid project, the construction of a 20 km cable tunnel beneath London, was planned to house 400kV high-voltage electrical cables to feed other sub-stations. Sensors within the cables alert surface operators of any overheating problems, so that early action can be taken.

A remotely operated water mist system was required, that could be fitted to a monorail train. The system was to be used in an emergency to rapidly quench the affected area of cable before permanent damage could occur to the cables.

### Further information

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### Solution

A dedicated low-pressure water misting system, based on the AQ900 was recommended, and accepted by the client. Special dual aspect water storage cylinders were designed to fit within the vehicles structure. These were fitted with flexible dip tubes and remotely controlled discharge valves, so that they could be instantly deployed from the surface control room. Water misting nozzles were fitted at key positions on the vehicle, to match the positions of the cables within the tunnel.