Metro Stations

Protection of Metro Stations with water mist

FOGTEC is the leading specialist for high-pressure water mist systems. Not only are these systems environmentally friendly but often more effective than conventional gas or water fire fighting systems.

Specially trained engineers provide consultant services as well as turn key solutions.

FOGTEC is part of the two major European research projects for underground facilities named:

- UPTUN (www.uptun.net) and Fit (www.etnfit.net).

Within the UPTUN research project FOGTEC has successfully completed the full scale fire test programme with fires of unlimited size.

FOGTEC Fire Protection System for Metro Budapest

The East-West metro line M2 is part of the mass transportation system of Budapest and has one of the greatest capacities among all metro lines in Budapest. The line has been in operation for more than 30 years and can not be replaced by any other transportation facility. The track runs for 8.8 km in a tunnel, for 1.6 km on the surface. It links the inner town at nine main junction points and it passes below the Danube. Of the stations eleven nine are constructed underground and two are located on the surface. After more than 30 years of operation a reconstruction of the metro line became necessary. The special environment found in metros make the escape of passengers and the access of fire fighting personnel extremely difficult in cases of accidents or fires. To provide better fire protection in the Metro stations the entire fire protection system is under reconstruction. As one part of this improvement of the fire
protection measures the installation of a high pressure water mist fire fighting system in each of the nine underground stations of the metro line M2 is provided. Four areas in every station shall be protected by the FOGTEC water mist fire fighting system.

- Underground stations
- Cable tunnels
- Escalators
- Control and inspection room

FOGTEC Solution
The concept of the FOGTEC solution is to rapidly and efficiently control and suppress a detected fire with a minimum amount of pure water. The FOGTEC high pressure water mist technology is capable of attaining the protective aims in respect of limiting the fire spread, lowering the temperatures and partly washing out away the smoke like no other fire fighting method. This is achieved by using a minimum amount of water, thus having a direct effect on problems pertaining to pipeline dimensioning, containing the extinguishing water and the risk involved with combustible liquids.

The transposing of these objectives without negative effects enables the tunnel structure to be protected apart from protecting people so that traffic can quickly start moving again, which assures the retention of necessary social and economic mobility. For this special application a fixed high pressure water mist fire fighting system is the most adequate solution.

System Advantages:
- Safe for people
- No pre-warning time
- Fast extinguishment
- Minimal water usage
- Rapid temperature reduction
- Uniform cooling
- Highly effective
- Smoke washing effect
- Short stand-down times after discharge
- Easy installation with pipes of very small diameter
- Zero environmental impact