



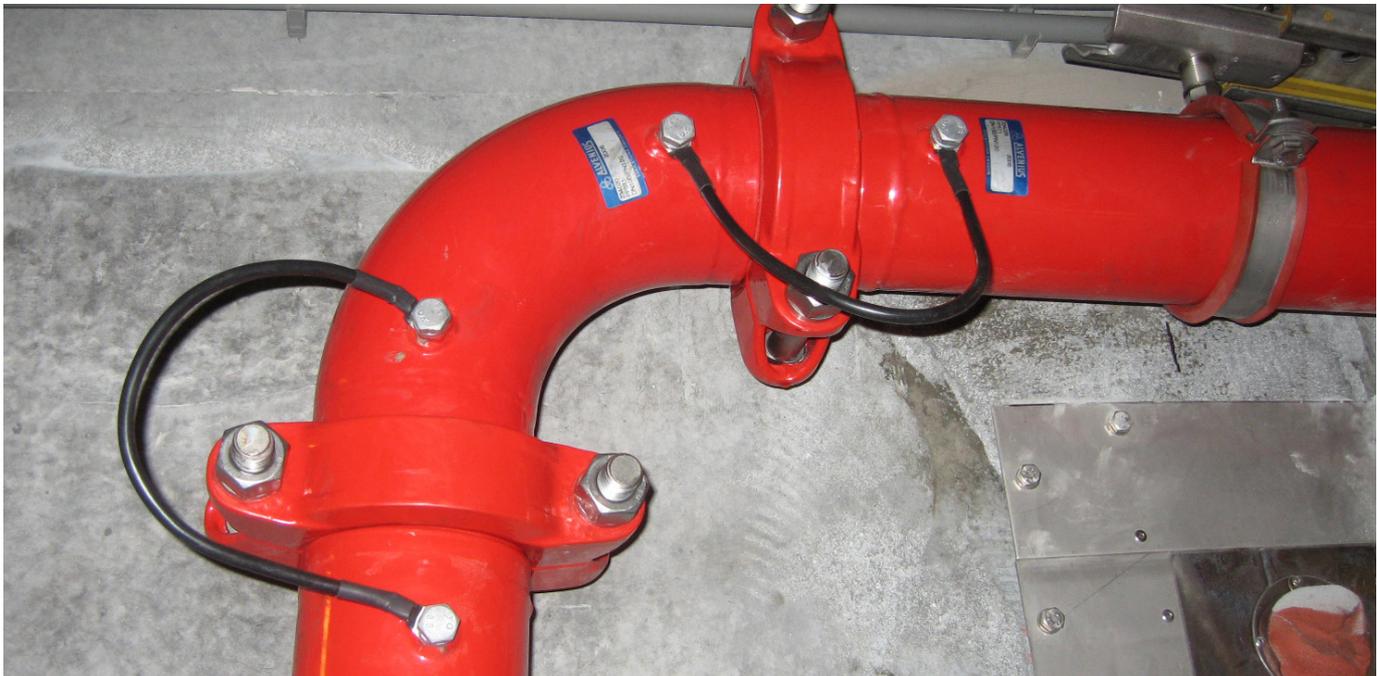
*Foto: Aquasys*

## Fire Fighting Pipe System

### Reference project: The Öresund Tunnel – the link to Europe

The Öresund link between Denmark and Sweden was opened on 1st July 2000. At a stroke it became possible to cross the Sound by car and train, and the connection immediately became an obvious link between Scandinavia and the rest of Europe. The Öresund link is 16 kilometres long in total, and comprises of three sections: A tunnel, a bridge and an artificial island, where the tunnel from Denmark and the bridge from Sweden join up in the middle of the Sound.

The tunnel section is 3.7 kilometres long, making it the world's longest immersed tunnel. It accommodates four motorway lanes, a two-track railway and a service tunnel. Alvenius was hired for this assignment, involving provision of extremely durable FlowMax<sup>®</sup> pipes to replace the original stainless-steel fire fighting system.



## The Project

The Öresund Tunnel has been built to cope with heavy traffic flows on both the motorway and the railway. A fire fighting system was installed right from the start, but it soon became clear that the stainless-steel piping system would not be optimal in the harsh, corrosive environment. Bearing this in mind, in 2006-2007 it was decided that the existing pipes would be replaced with the Alvenius FlowMax® system. The aim of all this was to ensure the long-term fire safety and general safety in the Öresund Tunnel.

## The Solution

Alvenius manufactured and supplied two complete systems involving rapid couplings, accessories and a total of 8,000 metres of thermoplastic-coated pipes. The result was an imposing installation that has been pressure-tested up to 172 bar, with a working pressure of 120 bar.

The Öresund Tunnel project is an excellent example of the way Alvenius's piping systems make a difference in environments with the toughest requirements in regards to sustainability, corrosion resistance and pressure resistance. The easily installed system, with its ready-made modules, straightforward rapid couplings and low weight, also contributed to the efficient and safe implementation of the project.

## Customer benefits

- Maximum corrosion resistance
- Easily installed modular system with rapid couplings

## Facts

- Dimensions: 114 mm and 219 mm.
- Media: Brackish water



Member of Boxholm Group



AB Alvenius Industrier • P.O. Box 550 • SE-631 07 Eskilstuna • Sweden • Phone: +46 16 16 65 00 • Fax: +46 16 12 26 34  
Email: info@alvenius.se • www.alvenius.com

