



Replacement of corroded water pipes installed underground

Reference case: Münchner Freiheit fountains

During summer time thousands of tourists and visitors gather around Münchner Freiheit fountains to cool down. But after 40 years underground, the water pipes were severely corroded and needed to be replaced with new pipes.

The old pipes were installed six meters below ground level, in very hard to access culverts and shafts. Thanks to a range of product advantages that solved the problems, Alvenius FlowMax[®] pipes were chosen for the renovation of the fountain water system.

Issues

During 2018 the water pipes that feed the Münchner Freiheit fountains needed to be changed, due to severe corrosion.

The project was relatively complicated – partly because the access to pumps and filters was limited and partly because the new pipes had to fit existing connections.

Also welding in culverts was out of the question, plus ductile iron or PE pipes were opted out because of their higher weight.

Solution

Thanks to the positive experiences of Alvenius FlowMax® pipes when the Stachus-Brunnen in Munich was renovated, the designing consultant PEG decided to choose FlowMax® pipes also for Münchner Freiheit fountains.

As Alvenius FlowMax® pipes are surface coated with CorroFlo®, they match the extremely high demands on long term corrosion protection required in the damp culverts and shafts.

The FlowMax® pipes are manufactured with spiral welded Swedish high-strength steel, and for an extra protection against wear and mechanical impact they were treated with RocShield® on top of the CorroFlo® coating.

The RocShield® rougher surface treatment also added a safer handling of the pipes, due to safer grip in the damp environment.

Customer benefits

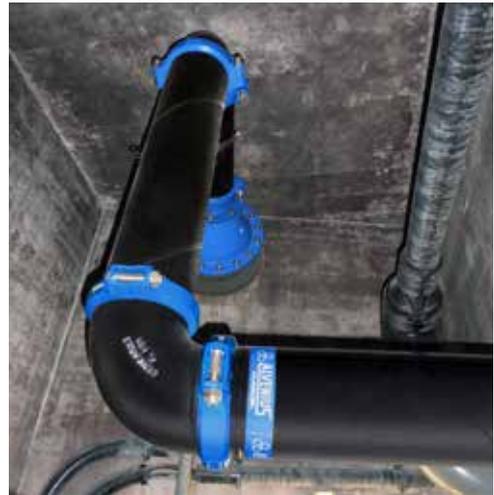
Connection of the FlowMax® pipes is very quick and simple, also under severe conditions – all that is need is a socket wrench.

The quick couplings have other important advantages – they allow for a certain deflection and axial movement, plus they can be easily disassembled and re-mounted.

As the handling and connection of the pipes was both tricky and particular, the FlowMax® pipes were manufactured and delivered in lengths of 3 meters. And due to their low weight – ca 40 % lighter compared to similar pipes in other material – the assembly process was quick and simple.

Facts

- Potable water pipes, DN 300, 3 meter pieces
- Pressure class: 10 bar
- Pipes, fittings and couplings treated with CorroFlo® and RocShield® surface coatings
- Couplings provided with stainless steel nuts and bolts



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