



Culvert under the Moldau at Budweis

Drinking water pipelines pulled in by the relining technique

In the course of the straightening of the Moldau between the towns of Budweis (České Budějovice) and Hluboká nad Vltavou in the Czech Republic, a culvert that was built some decades ago had to be renovated. To allow for the drop in the demand for water in the metropolis of Budweis in Southern Bohemia, a reduction in the nominal size of the pipelines was to be made at the same time as the culvert was rebuilt. The engineers at our Czech sales and distribution company Buderus Litinové Systémy (BGC) in Beroun therefore suggested the use of DN 500 ductile cast iron pipes with a 200 g/m² hot-dip zinc coat and a blue epoxy coating and of restrained BLS[®] joints. They also recommended trenchless laying by the relining technique.

“We were able to kill two birds with one stone in this way,” says Juraj Barborik, Head of Applications Engineering at BGC, “because the DN 500 cast iron pipes could be pulled into the existing pipelines consisting of DN 800 steel pipes. We achieved the desired reduction in the nominal size of the drinking water pipeline in this way and at the same time did the work at low cost by using the relining technique, because with this technique the money that has to be spent on laying is disproportionately lower than with conventional laying techniques.”

In December 2008, two laying pits were dug on the banks of the Moldau, the Czech Republic’s longest river, and the two parallel pipelines, each 112 metres long, were pulled in just five hours. The subsequent pressure testing revealed no causes for complaint of any kind and the concreting of the culvert could therefore be completed and the pipelines put into operation. The culvert is one of four crossings of the Moldau in the region of the town, which has a population of 95,000. “The quickly assembled BLS[®] joint confirmed the economic advantages of the ductile cast iron pipes and the long technical life will mean a sustained saving on operating costs”, says Barborik.