

Information from the European Association for Ductile Iron Pipe Systems · EADIPS®



Editorial

Dear readers.

In this September 2014 issue of the Newsletter I am reporting on pipeline renovations with ductile cast iron in Switzerland and Germany. There are also two further reports looking at the construction of new water pipelines using ductile cast iron to secure and improve drinking water supply. Restrained push-in joints were installed in all these projects. The polyurethane or cement mortar coating of the pipes makes sure that these pipelines have a long working life.

Have an enjoyable and stimulating read, Sincerely yours,

Raimund Moisa





Renovation of the Goldinger pipeline in the Swiss Canton of Zürich

♦ The Zürich lakeside communities of Hombrechtikon, Stäfa, Männedorf, Uetikon and Meilen draw part of their drinking water from Goldingen, which is located about 6 km from Lake Zürich in the Canton of St. Gallen. The DN 275 packed socket cast iron pipeline, with a total length of 28 km, went into operation in January 1912, taking one year (!) to construct in those days. But it was beginning to feel its age and needed renovating. A 1.5 km long section of the Goldinger pipeline in the municipality of Bubikon/Wolfhausen was replaced by a new ductile iron pipeline with vonRoll ECOPUR DN 300 full-protection pipes of wall thickness class K 9. These pipes have an integral polyurethane (PUR) lining and coating to EN 545. The pore-free, mirrorsmooth PUR lining has a very high hydraulic capacity and is 100 % free of plasticisers. The PUR coating, classified as reinforced in accordance with EN 545, withstands high mechanical loads and is resistant to all types of aggressive soils. The entire section of pipeline has been secured with vonRoll HYDROTIGHT internal thrust resistant restrained socket joints which are flexible, reliable and easy to install.

Drinking water bypass for the football stadium in Altach

◆ A section of an old drinking water pipeline in the inaccessible area beneath the stand at the Altach football ground was leaking and needed to be closed off and replaced with a bypass pipeline. The new DN 600, K 9 drinking water bypass in ductile cast iron pipes with cement mortar coating and BLS® push-in joints is a total of 660 m long. The allowable operating pres-

sure (PFA) is 32 bar. Thanks to the favourable weather conditions the construction work was able to be started as early as the beginning of February 2014. Running parallel to the new bypass pipeline is a high pressure natural gas pipeline and it was necessary to keep a minimum distance away from this. During the excavation work care had also to be taken to avoid overhead

lines in the immediate vicinity. As far as possible the ductile iron pipes were installed in a gravel bed in open trenches. Only in the area of the motorway exit were 20 m of DN 1000 steel pipes jacked in and the ductile iron pipes were then pushed into these. The construction time for the entire project was three months.





Feed pipeline in the service areas of Hubland, Gerbrunn and Lengfeld

♦ In order to increase the level of self-sufficiency of the water supply and secure adequate water pressure in the urban development area of Hubland, the Trinkwasserversorgung Würzburg GmbH utility company constructed a pumping station at the Galgenberg elevated tank to increase the pressure. The water is transported from the pumping station through a DN 400 feed pipeline to the service areas of Hubland. Gerbrunn and Lengfeld. From the feedin point at the pumping station to the connection to the existing network around 1,800 m of pressure pipes in ductile cast iron - DN 400, PN 10, C 40 (K 9), with TYTON SIT PLUS® (BRS® system)

restrained push-in joints – were installed. The client, the soil surveyor and the manufacturer agreed that the ductile iron pipes should be supplied with the robust cement mortar coating. This meant that it was not necessary to use the traditional sand bedding for the pipes and in most cases the trenches could be backfilled with the spoil.

In addition to the saving on sand, the advantages of installing ductile iron pipes with cement mortar coating lie in the considerably cheaper transport costs (less burden on the environment), a shorter construction time and hence further cost savings.

Dates for your diary

18–20 September 2014BWK Federal Congress 2014, Freiburg

29-30 September 2014

DWA Annual Conference 2014, Baden-Baden

29–30 September 2014 wat 2014, Karlsruhe

03 Dezember 2014

Annual Conference 2014
POLLUTEC 2014, Lyon
10 am, EADIPS®/FGR® presentation
"Ductile cast iron creates value"

Imprint

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Transport pipeline from Rohnstadt to Laubuseschbach

♦ In order to optimise the local drinking water supply the market town of Weilmünster in the Taunus foothills laid a new connection pipeline from the deep well at Rohnstadt to the local network of the upper area of Laubuseschbach. The new pipeline means that additional water can be supplied from the Rohnstadt deep well to the existing elevated tank in upper Laubuseschbach and in future also to the new elevated tank currently being planned. But, conversely, water can also be transported from Laubuseschbach and Wolfenhausen to Rohnstadt.

In order to avoid easements on properties, the pipeline was not to cross private land but run along public routes exclusively.



The 2,260 m long pipeline in DN 100 ductile iron pipes with cement mortar coating and TYTON SIT PLUS® pushin joints was predominantly installed outside built-up areas.

