

DUCTILE IRON PIPE SYSTEM

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



Editorial

Dear readers,
In this September 2010 issue of the Newsletter, I shall be telling you about a project in which a drinking water pipeline was replaced by a trenchless technique. You will also find a report on a ductile iron sewer pipe which was given interesting foundations in the form of ductile piles. One of our member companies has been given the distinction of an ÖKOPROFIT award. Finally there are two supplementary articles in which I present products from the range of ductile iron pipe systems. Have an enjoyable and stimulating read.

Sincerely yours,

Raimund Moisa



By directional drilling to the Hoher Asperg mountain

Parts of an old pipeline of grey cast iron which supplies the fortress on the Hoher Asperg, now a prison hospital, and the town of Asperg with drinking water needed to be replaced. The geodetic difference in height was about 100 m.

◆ The client was the water supply company Zweckverband Bodensee-Wasserversorgung. After extensive geological investigations it was decided to replace the pipeline by the trenchless horizontal directional drilling (HDD) technique. The main reasons for this were the route followed by the pipeline across the Hohenasperg nature reserve LSG 1.18.100 and the restricted access to the route. Added problems along the route of the pipeline were a historic gypsum mine on the southern slope and the steeply inclined position of certain sections of the pipeline. For these difficult conditions for installation, the client preferred to use ductile cast iron as the pipe material for the HDD technique. 1,050 m of DN 150 ductile iron pipes with the tried and tested BLS® push-in joint and a cement mortar coating were used. The total length of the four directionally drilled sections was 742 m and they were installed quickly and accurately. The work began in the summer of 2010 and three months later the entire installation operation had almost been completed.

A sewer on piles

St. Florian in Upper Austria is a market town with a population of around 6000 and two ductile products have been used there at the same time: ductile pressure pipes for a sewer pipeline and ductile iron piles as a foundation for the pipeline.

◆ Where the ground conditions are especially difficult, increasing use is being made of the "sewer on piles" system. There were silty, clayey and boggy soils in this region for



installation so additional steps needed to be taken to ensure that the sewer was safely and securely positioned. The firm of geotechnical engineers responsible therefore recommended the use of the "sewer on piles" system. As well as the provisions for a pile foundation dictated by the geology, the market town also stayed on the safe side with the external protection for the pipes. Because of the corrosive soils the ductile iron pipes were supplied with a PUR (polyurethane) Top coating. This external protection ensures that the ductile iron pipes will have a long life and thus helped to make the investment as a whole an economical one.



◆ On the 29th of April 2010, the Düker GmbH & Co. KGaA company, a full member of the FGR®/EADIPS®, was given the distinction of an ÖKOPROFIT award. ÖKOPROFIT (ÖKO = Ecological PROject For Integrated Environmental Technology) is a project for partnerships between municipalities and local business and industry. The project supports efforts to

ÖKOPROFIT – Düker is given an award

achieve the following goals:

- conservation of natural resources such as iron and water,
- improvement of energy consumption,
- reduction of waste and emissions,
- and, at the same time, reduction of operating costs.

What is done under the project is, with the help of expert outside assistance, to develop practical measures for improving the efficiency with which

energy and materials are used and the ways in which companies protect the environment. Following the successful implementation of the project by the Initiative Bayerischer Untermain, the regional marketing scheme for the Bavarian Lower Main region which is running the project, the Düker GmbH & Co. KGaA company of Karlstadt and Laufach was awarded a certification as an "ÖKOPROFIT company".

The fully protected ductile

◆ The fully protected ductile pipe known by the brand name vonRollecopur is coated, internally and externally, with polyurethane (PUR). It is produced to European standard EN 545 and is approved by the Swiss and German SVGW and DVGW water industry associations for the drinking water sector.

The PUR internal lining meets the requirements of standard EN 15655 and the outer coating complies with EN 15189. A ductile iron pipe with this coating can be used in soils of all



classes of corrosiveness.

The lining is suitable for water of all pH's from pH 1 to pH 14. The roughness coefficient which the pipes have is a low one of only $k < 0,01$ mm. The result is the highest possible flow rates and minimal head losses. The smooth-as-glass PUR lining is highly resistant

to abrasion. If the joints between pipes need to be locked against longitudinal forces, the "vonRollhydrotight" joint is available.

The proven fully protected ductile pipe will be continuing to perform special tasks in the laying of pipelines.

DATES FOR YOUR DIARY

18 November 2010

figawa/rbv Ductile Pipe Seminar 2010, Frankfurt

24–25 November 2010

2010 DWA Federal Conference, Bonn

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FUNCTION MEETS STYLE

◆ This is the slogan under which Keulahütte GmbH of Krauschwitz is offering variants of its above-ground hydrants in customized designs. The above-ground hydrant is now an established example of modern design but must still meet all the requirements demanded of it.

For example, the water supply company Mittelmärkische Wasser- und Abwasser GmbH of Kleinmachnow (to the south-west of Berlin) has installed a Eurodrant 80 – DN 80 above-ground hydrant in front of the regional sports association RSV 1949 sports centre. To suit its location, the head of the hydrant has been produced in the shape of a football. This demonstrates how above-ground hydrants are becoming versatile features in the design of public spaces.