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NEWS

DUCTILE IRON PIPE SYSTEMS

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

Editorial

Dear readers,

First of all I wish you health, wealth and happiness for the year 2014.

In this January 2014 issue of the Newsletter I am reporting on the construction of a penstock pipeline conduit as part of a power plant for the production of green electricity. There is also a report on the construction of water supply pipelines with restrained socket joints and one on the construction of a combined sewer with a low cover height.

Ductile iron pipe systems – they are totally versatile!

Have an enjoyable and stimulating read,
Sincerely yours,

Raimund Moisa

TIWAG Finsing power station opened in Zillertal

◆ In Finsing, which lies in the communities of Fügenberg and Uderns in the Ziller valley of the Tyrol, TIWAG has replaced two 80 year old power stations with a new power station. The new power plant has a capacity of 4.37 MW and, at around 20.6 million kilowatt hours per year, is now producing almost twice as much green electricity as the two old plants put together. At the opening of the power station in the presence of Günther Platter, the head of government of the Tyrol, and TIWAG board chairman Ferdinand Eberle, TIWAG CEO Dr. Bruno Wallnöfer pointed out that smaller power stations as well as the large ones make their contribution to furthering the cause of the ecological, efficient and sustainable development of domestic hydropower.
DN 1000 ductile iron pipes with VRS®-T/BLS® restrained socket joints were used. A major challenge for those involved in the project was the installation of the ductile iron pipes in an approximately 600 m long tunnel and undercutting the Finsingbach river. In the area of the power plant itself, the pressure pipe runs through an inhabited area; for this reason, all the concrete thrustpoints and the river crossing were insulated against structure-borne sound. This enabled the pipe suppliers to prove their system competence.

Friedelsheim Group opts for ductile iron pipe

◆ The "Friedelsheim Group" water supply association, based in Fußgönnheim, has been supplying its members for around 90 years and is therefore one of the most important suppliers of drinking water in the Vorderpfalz region. For many years now the association has been installing its pipelines with its own personnel and it places great value on high quality products and their expert processing. So, last year, for the development of the Mittelgewann-Ost construction project in Ellerstadt, around 1,500 m of ductile iron pipe of nominal size DN 100 was installed with the proven BLS® push-in joint. The flexible BLS® push-in joint is quick to assemble. The low level of force required and the rapid locking procedure mean that the installation rate of this restrained pipe-system is very high. The Friedelsheim Group has thus invested sustainably and economically for the future.

Safeguarding the water supply for the Aschafftal communities

◆ The water supply association for the Aschafftal communities (ZWA) in the district of Aschaffenburg, supplies approximately 40,000 residents in six member communities with around 1.9 million m^3 of drinking water a year.
Most of the water is routed via a DN 400 trunk main into the elevated tanks to Hösbach and Goldbach.
In the Bahnhof district of Hösbach a roundabout has been constructed for the junction of the AB 2 district road with the main St 2307 road. Together the two roads serve as an alternative route for the A 3 federal motorway. Therefore the new pipeline route was designed in such a way that the roads were crossed over by the shortest possible length and the roundabout remained unaffected. In addition, with the Aschaffbach river flowing nearby, the groundwater in the area beneath the pipeline can be aggressive.
180 m of DN 400 ductile iron pipe with BLS® positive locking push-in joints was installed, meaning that there was no need for costly concrete thrust blocks. A 5 mm thick cement-mortar coating was selected as the external pipe protection. Because of the outstanding structural properties of ductile iron pipes, there was no need for protective tubes to be installed.

A new sewer in ductile cast iron on the Bachweg in Seon

◆ In the municipality of Seon in the Aargauer Seetal, the Seon technical services department planned to replace the existing combined sewer DN 250 and DN 300 concrete pipe in the Bachweg. DN 350 ductile iron piping was installed; this meant that the need to adapt the hydraulic capacity was met. The minimum bedding depth of the pipeline is between 0.80 m and 1.30 m.

Because of the installation conditions and operational safety and for reasons of sustainability and security of investment, the design engineer and the developer decided on 6 m long vonRoll ECOPUR full protection pipe to EN 598.

Thanks to the non-porous polyurethane (PUR) coating and lining, all the requirements for the new sewage pipeline were met to perfection. The PUR lining with a roughness coefficient of $k \leq 0.01$ mm meant that the new pipeline could be run with a minimum gradient of 2.7 ‰ to 2.9 ‰. Access lines from existing buildings and street drains were connected to the ductile iron pipe using 90° tapping saddles. The integral PUR coating of the vonRoll ECOPUR pipes allowed for very precise tapping without breaking or chipping the coating.

The work of assembling the vonRoll ECOPUR pipes with the HYDROTIGHT push-in joint technique was simple and time-saving.

Dates for your diary

06–07 February 2014
28th Oldenburg pipeline forum, Oldenburg
08–09 April 2014
DVGW Forum on elements of water supply networks, Bad Honnef
27–29 April 2014
EADIPS®/FGR®-FIHB Conference for College and University Teachers 2014, Vienna

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