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NEWS

DUCTILE IRON PIPE SYSTEM

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

Editorial

Dear readers,

In this May 2013 issue of the Newsletter I am reporting on the relocation and rehabilitation of two drinking water pipelines and also on the relocation and extension of trunk and fire extinguishing water pipelines for a new industrial construction project.

There is also a report on the upgrading of snow-making equipment at the Zillertal Arena.

Have an enjoyable and stimulating read,
Sincerely yours,

Raimund Moisa

Trunk main and fire-extinguishing water pipeline for an industrial construction at Härkinger-Kreuz

At Härkinger-Kreuz, an intersection of the Swiss national road network, a well-known automobile importer is planning to build an extension in the industrial park. Before starting construction the existing trunk main and fire-extinguishing water pipeline in the intended construction area needs to be relocated and extended in order to secure the supply of drinking water and fire-extinguishing water.

◆ DN 200, K 9 vonRoll*ecopur* ductile iron pipes with internal polyurethane lining to EN 15655 and external polyurethane coating to EN 15189 are to be used for the 600 m long drinking water, fire-extinguishing water and trunk main which is designed for a PFA of 16 bar. vonRoll*ecopur* pipes are ductile iron pipes with a "reinforced coating" to EN 545; the so-called "full-protection pipe system". The ductile iron pipes are protected with the proven vonRoll*hydrotight* restrained thrust resistance system. For the extinguishing water requirement, four vonRoll*HY5000S* type hydrants will be installed which must guarantee a required extinguishing water supply of at least 3,600 l/min. In addition, numerous vonRoll*ecofit* fittings and VS5000 full-protection gate valves to EN 14901 and RAL GZ 662 will be installed. All those involved in this project found the vonRoll*ecosys* full-protection system extremely simple, quick and safe to install.

Gerlos – Getting ready for winter in the summer

◆ The upgrading of snow-making systems for the Gerlos ski resort in the Tyrol, which is part of the Zillertal Arena, progressed further in the summer of 2012. Around € 4 million has been spent on this project by Bergbahnen Gerlos. To supply the snow lances with water a new storage reservoir has been created at Fußalm and around 9 km of ductile iron pipes has been installed. Nominal sizes of from DN 80 to DN 400 were used and pressure ratings from PN 40 to PN 100.

Not only do the ductile iron pipes give the required reliability but they are also quick and easy to install, usually by the piste operator's own employees. This offers tremendous economic advantages. Meanwhile the Gerlos skiing area now has three reservoirs with a holding capacity of around 200,000 m³, a pipe network of approximately 23 km and 350 snow makers.

Rehabilitation of a drinking water pipeline in Halle (Saale)

◆ The HWS (Hallesche Wasser und Stadtwirtschaft GmbH) supplies around 238,000 residents with drinking water. But the constantly increasing level of road traffic is placing a great load on the older HWS drinking water pipelines. A rehabilitation of these often repaired pipelines is therefore essential if a stable water supply is to continue to be guaranteed. At the same time the cross-section of the pipelines can be adapted to the lower consumption rates. The rehabilitation is concentrating on the drinking water pipelines under major roads and in the inner-city area. So it also includes the main supply pipeline in Gütchenstraße, a DN 600 grey cast iron/steel drinking water pipeline which was constructed between 1909 and 1913.

The old DN 600 pipeline included a section of about 400 m of DN 400 ductile iron pipes. A further 95 m of DN 400 has been integrated into the open trenches using the cut-and-cover method. Because of the existing changes of direction, three launch pits and three target pits were necessary. The ductile iron pipes have been installed using the pipe-by-pipe assembly process using BLS®/VRS®-T restrained push-in joints.

After successful completion of pressure testing, the ring area was isolated. DN 400 isolating gate valves are used in the new drinking water pipeline because further construction stages are to follow.

"Evasive action" on a DN 1000 drinking water pipeline by Hessenwasser GmbH & Co. KG for the construction of a ring road

The town of Raunheim is building a ring road which crosses the railway line via a road bridge. In the vicinity of the Flörsheimer forest path, the new road crosses the existing DN 1000 trunk main belonging to Hessenwasser GmbH & Co. KG which carries a volume of up to 120,000 m³ drinking water a day.

◆ The maximum operating pressure of the pipeline is 9 bar. The construction of an embankment is planned for the road in the area of the crossing, which would be built over the existing trunk main to a height of about 5.0 m. Therefore Hessenwasser has moved a length of around 145 m of its drinking water pipeline out of the danger area of the embankment. For safety reasons, Hessenwasser decided to install ductile iron pipes here. Because of the numerous changes of direction, ductile iron pipes with BLS® restrained push-in joints were used. This meant the use of concrete thrust blocks was unnecessary. Also the existing excavation material was able to be reused because the pipes have a cement mortar coating. What is more, the cement mortar coating guarantees a very long operating life. The pipeline had to be put out of operation while the new section of pipeline was being incorporated into the trunk main. However, the high level of organisational and personal input by all concerned ensured that customers could still be supplied with drinking water during construction and above all during the reconnection work.

Dates for your diary

5–6 June 2013
123rd Annual Conference of the ÖVGW [Austrian Association for Gas and Water], Linz

18–19 June 2013
10. Kanalbautage
[10th Sewer Installation Day), Bad Soden

19–21 September 2013
BWK Conference,
Stralsund

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