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NEWS

DUCTILE IRON PIPE SYSTEMS

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

Editorial

Dear Readers,

In this May 2015 issue of the Newsletter I am reporting on the installation of ductile iron pipes for water supply pipelines as part of a road construction project in Switzerland and for a secure drinking water supply to a district and an estate in Germany.
Another contribution reports on the use of ductile driven piles for a motorway enclosure in Austria.
Ductile iron pipe systems being installed just where they are needed.

Have an enjoyable and stimulating read
Sincerely yours

Raimund Moisa

Replacement of drinking water pipelines as part of the construction of a new roundabout in Strengelbach

◆ Since October 2014 the district of Strengelbach in the Swiss Canton of Aargau has gained a new attraction: after seven months of building work the first roundabout in the district, near Kreuzplatz, was able to open for traffic. As part of the construction work, in March 2014 a number of utility pipelines were also replaced, including a 280 m long DN 300 drinking water transport pipeline as well as various DN 125 (100 m) and DN 150 (80 m) supply pipelines. The Strengelbach water supply company decided in favour of the durable and reliable vonRoll ECOPUR full-protection pipes in ductile cast iron with a reinforced coating to EN 545 and the HYDROTIGHT thrust resistance system. The reasons for this were the very tight space conditions, the flexibility of the cast iron pipe system and its ease of installation. ECOPUR push-in pipes have an integral, non-porous internal and external coating of polyurethane (PUR) to EN 15655 and EN 15189 and can also be used in highly aggressive soils. Because of their electrically insulating coating and thrust resistance system they are also able to withstand galvanic corrosion caused by stray currents or macro-cell formation. Also used were vonRoll ECOFIT fittings and various VS5000 shut-off valves with integral epoxy coating to EN 14901 and RAL - GZ 662 as well as type HYTEC/VARIO 2.0 hydrants.

Water pipeline for three refugee centres

◆ As of April 2015, three buildings of the former US "Conn Barracks" to the North-East of Geldersheim near Schweinfurt are to be used as emergency accommodation for asylum seekers. The RHÖN-MAINTAL GROUP water supply association in Poppenhausen is responsible for supplying the centres with drinking water. 1,030 m of DN 200, PFA 16 ductile iron pipes with cement mortar coating and TYTON SIT PLUS® restrained push-in joints were installed. The connection to the existing DN 400 trunk main in cement mortar coated ductile cast iron pipes is located in a new supply shaft near Geldersheim and the connection to the existing system of DN 100 cast iron pipelines is located on former US military land. Ductile iron pipes can also be laid and assembled in cold weather without problem. This was highly significant for the completion deadline as a tight time frame during the winter months was specified. The work was completed in March and the pipeline was able to go into operation as planned at the end of March 2015.

Ductile iron driven piles for the Tauern motorway enclosure at Zederhaus

◆ In 2004 ASFINAG, the Austrian corporation in charge of motorways, signed a joint declaration with the Federal and regional government bodies for the planning and execution of environmental improvement measures along the A 10, the Tauern motorway, between Salzburg and Kärnten. A package of measures costing around 300 million Euros was put together for the protection of people living nearby. The enclosure in Zederhaus currently represents the largest of the projects (investment of 67 million Euros). Work started at the end of August 2013 on erecting an enclosure just under 1.5 km long which protects the residents of Zederhaus from noise alongside the A 10 and which should be completed by summer 2017. During the construction work on the carriageway going towards Kärnten, ongoing soil surveys showed that, because the subsoil is really quite weak here, deep foundations are required in order to transmit the loads produced by the tunnel structure down into layers with better load-bearing capabilities. The construction company Felbermayr Bau GmbH was commissioned by ASFINAG to prepare a supplementary offer. The economic appraisal, the need for flexibility, the production of test piles and a static test load resulted in the choice of the TRM piling system with cement mortar grouted ductile iron driven piles in DN 118. Some 35,000 m in length were driven into the subsoil in this way to provide a stable foundation. The foundations of the first carriageway, with 20,000 m of TRM piles, were successfully completed in 2014.

New drinking water connection pipeline between the Heinzenberg and Mönstadt elevated tanks

The community of Grävenwiesbach in the metropolitan region of Frankfurt RheinMain commissioned the construction of a new connection pipeline between the elevated tanks of Heinzenberg and Mönstadt.

◆ The 2,400 m long connection pipeline starts at the existing Heinzenberg elevated tank with a connection to its water chamber. Because of the geodetic height differences, a pumping station had to be constructed directly next to the Heinzenberg elevated tank.

For the new connection pipeline, DN 100, C 100 ductile iron pipes with TYTON SIT PLUS® restrained push-in joints and cement mortar coating to EN 15542 were selected.

The pipeline runs across unsurfaced sections of country tracks to the "Am Bahnhof" estate, which is equipped with a house service connection. Fire-fighting water can be drawn off from a new hydrant. In addition, the route of the pipeline crosses a woodland track which is in part surfaced with gravel. The L 3375 road was crossed using the open trench technique and the pipeline was taken under the Wiesbach river by horizontal directional drilling. In this area the pipe lies on skids in a protective tube. Both ends of the protective tube are sealed to be watertight.

The construction work began in April 2015 and should be completed in August 2015.

Dates for your diary

09–10 June 2015
12th Sewer Construction Conference, Kassel

17–19 September 2015
30th BWK Federal Congress, Jena

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