

NEWS

DUCTILE IRON PIPE SYSTEM

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



Editorial

Dear readers,

In this February 2011 issue of the Newsletter, I shall be telling you about two pipeline projects which are enabling artificial snow to be produced using ductile iron pipe systems. Two other articles are reports on the laying of pipelines for drinking water and fire-extinguishing water and there is one article devoted to the relaying of an existing drinking water main. Restrained push-in joints were used on these projects - socket joints for ductile iron pipe systems which have proved their worth for many decades. Have an enjoyable and stimulating read.

Sincerely yours,

Raimund Moisa



Securing the supply of drinking and fire-extinguishing water at Frankfurt Airport

To ensure that there is a secure supply to meet the increased requirement for drinking water and fire-extinguishing water at Frankfurt am Main Airport, the operator, Fraport AG, placed a contract for the DN 350 connecting pipeline from Hessenwasser GmbH & Co. KG's Hinkelstein waterworks to Fraport AG's chlorinating station to be replaced with a new DN 400 ductile iron drinking water pipeline.

◆ As part of the replacement, 400 m of ductile iron pipes with the rugged BLS® restrained push-in joint were pulled into a DN 1200 protective casing tube on skids for sliding. The rest of the run of 1,800 m of ductile iron pipes was installed in open trenches using the TYTON SIT PLUS® joint system. Along the 2.2 km or so long route, crossings were made below the regional railway linking the airport and Kelsterbach, the Frankfurt-Cologne Intercity Express line, federal highway B 43 and the A 3 federal autobahn.

World Alpine Ski Championships and the Winter Olympics

Snow-making with ductile iron pipe systems

◆ Austria and its state of Tyrol most of all are in the vanguard in the field of artificial snow-making in Europe. 75 % of the territory for ski sports in the Tyrol already has systems for making artificial snow. Without these facilities, 70 to 80 % of the ski resorts would have to close due to a poor cover of natural snow. For many years now,

ductile iron pipe systems have been doing their bit in snow-making systems to make sure of a reliable blanket of snow. Ductile iron pipe systems are being used in the snow-making systems for the 2011 World Alpine Ski Championships in Garmisch-Partenkirchen (Germany), the 2013 ones in Schladming (Austria), and in 2014 for the Winter

Olympics at Sochi (Russia). The pipes being used are ductile iron ones with the restrained BLS® push-in joint. Experience with the installation of ductile iron pipes for snow-making systems has been good and thanks to this even the most difficult installation conditions in very steep terrain can be coped with successfully.



Ductile iron pipes for a "convenience store"

◆ In Bergen on the Baltic island of Rügen an investor is developing some unused land on the road known as Putbuser Chaussee to allow a new supermarket to be built. Part of a main for drinking water has had to be relaid.

The supply utility responsible decided to use 180 m of DN 300 nominal size ductile iron pipes to EN 545 of wall thickness class K 9 with BRS® restrained joints. The pipes are lined with cement mortar. The external protection they have consists of a metallic zinc coating and a blue epoxy finishing layer. The pipeline runs along the road

and after being pressure tested and checked for good hygiene, it was connected into the main, which had been cut.

The easy connection of the ductile iron pipes with the deflectable push-in joints made the work easier; the joints allowed local adjustments to be made to the route. Section-by-section installation ahead of the end of the trench was also possible. All this meant a shorter installation time. There was a limit to the amount of disruption caused on the road and at the crossroads, which carries a lot of traffic.

DATES FOR YOUR DIARY

03 March 2011

tis Magazine Underground Construction Forum 2011, Frankfurt

10-11 March 2011

34th Dresden Annual Conference on Hydraulic Engineering, Dresden

02-05 May 2011

WASSER BERLIN INTERNATIONAL 2011 Water and Wastewater Trade Fair & Congress, Berlin

17-18 May 2011

8th Sewer Construction and Installation Conference 2011, Heidelberg

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The ski resort of Celerina Snow-making system

In the summer of 2008, the operator Bergbahnen Engadin St. Moritz extended the snow-making system in the ski resort of Celerina to a length of some 1,700 m.

◆ Ductile iron pipes of the vonRollducpur type are used for pumping water from the Marguns pumping station to the slope which is to be given a cover of snow. The pipes are lined with polyurethane to EN 15655 and are protected against corrosion by a zinc/bitumen coating to EN 545. The pipes used on the present project are of nominal diameters from DN 100 at DN 250 and of pressure ratings from PN 40 to PN 63. The pumping capacity of the pipeline network is between 60 and 300 m³/h. The individual sections are designed so that snow can be made with sixteen lances or eight low-pressure machines simultaneously. The slope can be covered with snow in about 30 hours. Depending on the accessibility of the terrain, the pipes were either distributed along the part of the slope by a dumper and installed with the help of an excavator or were flown directly to the pipeline trench by helicopter.

DN 200 pipeline for fire-extinguishing water for Pepsico

◆ Since 1974, Pepsico Deutschland GmbH has been operating a plant for carbonated soft drinks in Nieder-Roden. A new filling line is raising annual output by 80 million litres. The company is investing around 2 million Euros in fire protection measures. These include an 800 m long ring pipeline for fire-extinguishing water. The manufacturer of the DN 200 ductile iron pipes of wall-thickness class K 9 with BLS® push-in joints which are being used for it has FM approval for the pipes. The pipeline supplies fire-extinguishing water to internal and external hydrants and a sprinkler system.

