

# NEWS

## DUCTILE IRON PIPE SYSTEM

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



### Editorial

Dear readers,  
in this October 2010 issue of the Newsletter I shall be telling you about two water pipeline projects which were carried out with ductile iron pipe systems. These were both cases of rehabilitation by replacement. There is also an article dealing with the laying of foundations for pylons for a high-voltage overhead transmission line by using ductile driven piles. In a further article we give you details of how two of our member companies have been sold to become part of the TALIS group of companies. Have an enjoyable and stimulating read.

Sincerely yours,

Raimund Moisa



### Water pipeline under an arch bridge

Swiss Steel AG is a leading supplier of high-grade steels to the automotive, machinery, plant and equipment industries and has a tradition going back more than 150 years. At its works at Emmenbrücke near Lucerne, an old DN 300 water supply pipeline operating at a pressure of 7 bars needed to be replaced where the situation for installation was a special one.

◆ There is an arch bridge which serves as the access route to the works for lorry and rail traffic and the carriageway on it needed to be resurfaced. This also provided an opportunity for an old grey cast iron water supply pipeline dating from 1943 with packed sockets to be replaced. The pipeline is in a narrow services duct in the part of the arch bridge where the footway is situated. Because of the very cramped conditions in the services duct and the situation of the access openings, the ideal solution was the vonRollecopur fully protected ductile iron pipe which has a thin polyurethane coating to EN 15189 which is highly resistant to corrosion and to mechanical damage. The laying length of the ductile iron pipes was 4 m. Movements and vibrations in the bridge are fully absorbed at the flexible joints between the ductile pipes. The installation of the pipes on pipe clips with the help of the easily connected vonRollhydrotight push-in joint went off without a hitch even under the cramped conditions in the services duct.



### Tyco Waterworks Europe becomes TALIS

The Tyco International company has sold its "Waterworks Europe" group to the Triton private equity firm. The new company entered the market on 1 October 2010 under the name TALIS.

◆ The new TALIS company includes amongst others FGR® / EADIPS® member companies ERHARD GmbH & Co. KG and Ludwig Frischhut GmbH & Co. KG. A total of nine international brands make up the TALIS group. The company attaches great importance to ensuring constancy for customers both in their

contacts and in the products under the new TALIS brands. In future, TALIS would like to take on an even greater leading role in the market.

TALIS has production facilities in Germany, England, Spain, France, Poland and the Netherlands and has 1,500 employees worldwide. The new brand will focus on versatility in all areas of valve engineering for water. Hence the TALIS motto: "Your choice in waterflow control".



## Ensuring a secure drinking water supply on the island of Rügen

Wasserversorgung und Abwasserbehandlung Rügen' of Bergen, therefore decided to use ductile iron pipes to install the new water pipeline, next to the old one, by the horizontal directional drilling technique. What were needed were 134 m of DN 300 nominal size ductile iron pipes with restrained TYT®-BLS® push-in joints and a cement mortar coating. The crucial factor was the angular deflection of 3° which was possible at the sockets, i.e. a 30 cm deflection off the axis of the preceding pipe for 6 m long pipes. Following the easy and quick connecting together of its push-in

joint with the BLS® locks, each socket was protected against fouling getting into it by rubber sleeves. Mechanical protection for the rubber sleeves was provided by sheet metal cones which are pulled along with the pipes. The uncomplicated connecting together using the lock system enabled the pipes to be connected together one by one in the target pit followed by step-by-step pulling-in. The combination of the technique and the restrained ductile iron pipe system once again allowed a tailor-made solution to be found to an installation and water management problem.

◆ On the island of Rügen in the Baltic an old DN 300 asbestos cement pipeline needed to be rehabilitated. Its route ran through marshy land and across a deep gully along which a stream ran. The client, the water supply utility 'Zweckverband

## Building of a 110 kV transmission line

As part of the building of a new 110 kV main transmission line by Tiroler Wasserkraft AG (TIWAG) for the Zillertal valley in Austria, "ductile piles" are being installed to provide the foundations for a total of high-voltage pylons.

◆ What are being driven for this are about 5,500 running metres of ductile piles of the 118/7.5 mm size (diameter of the concrete grouting 200 mm)

and 10,000 running metres of ductile piles of the 170/9.0 mm size (diameter of the concrete grouting 250 mm). Depending on the type of pylon (suspension pylon or deviation pylon), 8 or 16 ductile piles able to take tensile loads of up to 860 kN and compressive loads of up to 1,013 kN are being driven for each pylon. The factors that decided the use of the ductile piles were the advantages they have as foundation piles for the building of power transmission lines:

- costs are comparatively low due to the very high installation rates per day,
- test loadings enable the criteria for driving to be adjusted on site, meaning that a quick and flexible response is possible to varying soil conditions,
- costs are low when changing to the site of the next pylon,



- after some preliminary excavation the piles can be driven from the original ground level, which means that there is no unnecessary driving,
- damage to the piles is minimised if there is any later excavation, and
- there is no spoil to remove in the course of the driving of the piles.

### DATES FOR YOUR DIARY

#### 18 November 2010

figava/rbv (German Gas a. Water Industry Company Association/Pipeline Installation Association) Ductile Pipe Seminar 2010, Frankfurt

#### 24 -25 November 2010

2010 DWA (German Association for Water, Wastewater a. Waste) Federal Conference, Bonn

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