



Editorial

Dear readers,

With this October 2012 issue, our Newsletter is being given a new layout. As part of this new layout, we are also presenting our new logo incorporating the name of the Association to our readership in the industry.

The October 2012 Newsletter tells you about the replacement of two water pipelines and a sewer pipeline and we also describe an innovative monitoring system for pipelines.

Have an enjoyable and stimulating read,

Sincerely yours,

Raimund Moisa



Unter den Linden – the press/pull technique in the very heart of Berlin

On the celebrated “Unter den Linden” leading up to the Brandenburg Gate, Berlin’s water supply company Berliner Wasserbetriebe is employing a trenchless technique to replace old drinking water pipelines along exactly the same route. Tourists flock to this world famous boulevard in the capital so considerate laying is essential.

◆ The renowned Berlin company KARL WEISS Technologies GmbH is using the press/pull technique to replace old pipes of grey cast iron with new DN 150 and DN 200 nominal size cement mortar coated ones of ductile iron with the BLS® positive locking restrained joint. The small assembly pits, a water supply maintained by means of interim pipelines and the protection given to the world renowned linden trees that give the street its name are all ensuring that the tourists from all over the world will have pleasant memories of the street in spite of the installation work. Many of them will not even notice that any work is being done because there is very little for them to see or hear: almost no noise from the site, no dust, no major earth-moving operations by large pieces of machinery and no parts of the street blocked off – the environment is being sustained.

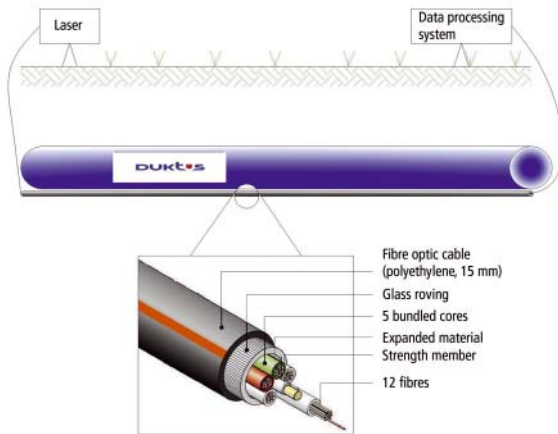
Replacement of the pipeline to the Döttingen reservoir

◆ The infeed pipeline to the reservoir at Döttingen in Switzerland needed to be replaced. The municipality opted for ductile iron pipes. The pipeline runs between the streets called Schiltihaldesteig and Rebergstraße and because of their positive properties, such as the easy handling of ductile iron pipes, the quick assembly even in steep terrain and the safe and flexible installation with the vonRollhydro-

tight external thrust resistance system, the pipes chosen for replacing it were vonRoll-ecopur fully protected pipes.

Part of the drinking water pipeline was installed along the streets in the cold winter months, which is no problem for ductile iron pipe systems. The new DN 300 pipeline of vonRoll-ecopur fully protected pipes with a PFA of 16 bars follows the same route as the old 300 m long infeed pipeline.

The fully protected ductile iron pipes of wall-thickness class K 9, with a reinforced coating to EN 545 in the form of integral internal and external coatings of polyurethane and with the tried and tested vonRollhydrotight push-in joint, met the requirements laid down for them without any difficulty.



New monitoring system for ductile iron pipelines – Winnebach small hydroelectric power station in South Tyrol

◆ In the area covered by the municipalities of Terenten and Vintl in the Italian province of South Tyrol, a water-diverting hydroelectric power station is being built on the Winnebach stream. The water diverted from the stream is conveyed to the floor of the Pustertal valley through a buried DN 600 ductile iron pipeline some 3,340 m long. The pipeline is continuously monitored by fibre optic temperature measurements made by the heating-up method. The fibre optic cable is situa-

ted in the draining material below the bottom of the pipeline. Fibre optic temperature measurements have been used for several years now for monitoring ducts in hydroelectric power stations and also dams. In the heating-up method, the fibre optic cables are heated by applying a voltage to the electrical conductors incorporated in the cables. The rise in temperature in the cable is an indication of the heat transfer field around the cable. To locate leaks, the measured temperature difference between an original measurement and a measurement when heated up is evaluated. Areas where the temperature

differences are small indicate that there is water flowing round the cable and hence that there is a leak. The minimum interval between the points at which measurements are made is 0.25 m. The first measurement is made when the system is fully installed but the pressure pipeline has not yet been filled. This is equivalent to the usual zeroing measurement. The next measurement is made once filling with the driving water is complete. It indicates how leaktight the pipeline is. This monitoring system calls for only small amounts of time and money to be spent and another notable feature is the high information density it gives compared with other methods of leak detection.

The town of Nidderau – sewer replacement by ductile iron sewer pipes

Dates for your diary

19 October 2012

Richter + Frenzel Underground Construction Conference, Nuremberg

9 November 2012

9th Sewer Installation Day, Neuss

7–8 February 2013

27th Oldenburg Pipeline Symposium, Oldenburg

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◆ The general drainage plan of December 2007 envisages the sewers being replaced on the Eisenbahnstraße and part of Ziegelstraße in the Ostheim district of the municipality of Nidderau in the German state of Hesse. The surfacing of the streets is also being replaced in connection with a re-design. In all, a length of 329 m of concrete pipes which are showing their age is being replaced by ductile iron sewer pipes. As well as leaks at the sockets, the camera surveys carried out over the past few years have also revealed longitudinal and transverse cracks. Hydraulic calculations led to larger nominal sizes being adopted for the new sewer. 145 m of DN 500 pipes are being installed on the Ziegelstraße and 184 m of DN 600 pipes on the Eisenbahnstraße. The tried and tested TYTON® push-in joint ensures the leaktightness it needs for the combined sewer. With their long operating life, the ductile iron pipes selected meet the criteria for environmental and economic sustainability.

