

Inspection tool puts faster repairs in pipeline

YORKSHIRE Water and one of its contractors, Kentons Utilities, are pioneering the use of a tool that will allow the inspection of the whole of a water pipe before relining.

Previous techniques that take sample pieces of pipe, known as coupons, have only done so from the top section of the pipe. The new method allows samples to be taken from the bottom as well without affecting customers' supplies.

Being able to examine the inside of the entire section of

the pipe means the condition can be determined with almost 100% accuracy.

The technique is said by Yorkshire Water to reduce the risk of discoloration of supplies to customers, and is scheduled for its first application in the huge £21 million project to refurbish the trunk main for Bradford, which is due to take three to five years.

The Bradford system, which supplies water through pipes ranging in diameter from 375 to 900mm, some of them

Victorian, delivers more than 150,000m³ every day to 200,000 premises.

Kentons and its subcontractors will take 160 coupons in the 12.5km system.

The process involves the use of under-pressure drilling rigs to cut the pipes and then remove the top sample in the usual way. A fully encapsulated pressure-tee then allows a second drilling through the bottom of the pipe to remove a second coupon, which is vertically lifted out of the pipe. The

pressure-tee has an integral sump that maintains pipe integrity and allows the water to keep flowing.

Yorkshire Water distribution projects manager Terry Thompson said: "Before the Bradford trunk main relining contract starts we need an accurate picture of the state of the pipes so we know which type of relining or cleaning technique to use in the various sections. Thanks to this new inspection method, we can plan our work more effectively."

Dry ice cleans up

CAR components company Stankiewicz is using a dry-ice cleaning system to remove the residues from plastic moulds. The system has been developed for applications where conventional sand or liquid cleaning processes don't work very well.

In the plastic moulding application at Stankiewicz, the production line used to have to be stopped for three hours a week to get the residues removed by wire wool. Now it's a 25-minute dry-ice job. The system, called Cryonomic, is available through MSM of Slingsby in Yorkshire.



Now you can take sugar in your solvent

SIS CHEMICALS has developed a green alternative to trichloroethylene, the category 2 carcinogen solvent commonly used to clean metals.

Purasolv EHL (ethyl hexyl lactate) is an environmentally friendly derivative of sugar beet, being both non-toxic and readily biodegradable. In trials by CC Hydrosonics, metal cleaning and pre-treatment specialist, Purasolv EHL was found to be an effective alternative in ultrasonic degreasing machines.

The tests by CC Hydrosonics established that the solvent worked best at 132kHz from ambient temperature to 80°C. Different cleaning cycles and drying times were used on component samples contaminated with lithium grease, heavy oil, cutting oil and polishing compound.

Tests were also carried out on Purasolv Elect, a solvent approved for use as a food additive and in aerospace applications. Both solvents are easily disposed of through incineration, producing only carbon dioxide and water.

Infrared unit is the Redi answer to data logging

REDI is a data logging system from Antech, designed to access data gathered in hazardous zones without external wiring for power or data transmission.

Operators collect stored data from the Redi unit using an infrared communications port housed in a handheld computer. Once downloaded into the handheld unit the data can be reviewed and transferred to a PC, and

imported into any spreadsheet or database for analysis.

The Redi system is specifically intended for use by the upstream oil and gas industries, where monitoring the environment, wellhead pressure, flow and other parameters has always been problematic.

Infrared transmission removes the installation costs of connecting safe sensors by

long cables in isolation barriers to a logging unit outside the hazardous area. It is also a preferable solution to using a portable unit in the hazardous area that has to be disconnected and removed from the site each time the data are to be downloaded.

The self-contained Redi unit is designed to operate in harsh oilfield environments, and powers the sensors from its own batteries.

