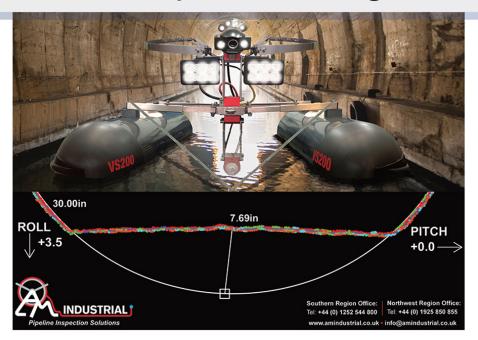
Sonar Pipe Profiling



CCTV survey data previously. This enables immediate responses to be made if any pipeline shows such serious defects that such a response is necessary.

Sonar Surveys

Where it may not be possible to survey a pipeline where there is an amount of silt that cannot be removed prior to survey or which cannot be taken out of service for whatever reason there is still a need to understand the operational state of the asset. One option to complete a survey in such a situation is the use of sonar. As with sonar use in other areas such a depth measurement at sea or from submarines, sonar systems for pipeline inspection produce an acoustic pulse which is transmitted through fluid in the pipeline, which would impede view using visual inspection, and through any silt layer in the invert of the pipe. The reflected pulse is analysed and an image created showing the profile of the pipe wall including any potential defects such as cracks and misalignments.

AM Industrial – UK-based AM Industrial Ltd (AMI) has for many years been a leading manufacturer of CCTV pipeline inspection systems including: Pushrod systems, Camera Crawlers, Cable Drums, Cameras, Camera Control Consoles and Customised Inspection Vehicles.

In more recent years the company has developed a reputation for what has become a speciality offering, that of Sonar Surveying. AMI supplies its VS200 pipe profiling system for surveying semi- and fully-surcharged pipe lines. The principle is that the underwater sonar scanner transmits an acoustic pulse and then captures the return signals to obtain data to verify the below waterline internal pipeline conditions.

With the facility to operate in real time with continuous 3600 scanning, the Windows-based operating software processes, stores and displays the data. The data can then be either processed on site or back in the office.

The use of measuring tools, which work on the data produced during the survey, allows the calculation of silt levels within the pipe and the size of any possible intrusions or obstructions along the surveyed pipe length.

AMI offers two scanner options:

- The P2512 mini scanner, which has a minimum scanning range of 50 mm and a maximum scanning range of 2,000 mm is ideal for skid-mounted applications when surveying smaller diameter pipes and syphons.
- The P1512 mainline scanner which has a minimum scanning range of 100 mm and a maximum scanning range of 6,000 mm is ideal for float-mounted or crawler-mounted applications in larger diameter pipes and culverts.

Both sonar and conventional CCTV visual inspection operations can be carried in tandem using AMI's camera systems or the sonar system can be mounted to other manufacturers CCTV camera systems.

