Inspecting pressure sewer pipes: Potential, requirements and results



Test rig: IKT research on inspection and conditionsurveying of pressure sewer lines

Pressure sewer pipes are well down a sewer operator's list of their favourite parts of the network. Because there are no inspection or maintenance ports. Because the precise location of the pipe is often not known. Because numerous bends obstruct the flow. They can be found in practically all drain and sewer networks, but their characteristics and their special design confront sewer network operators with a real challenge when it comes to inspection and condition surveying.

Legal provisions

Pressure sewer lines are subject to the legal provisions concerning **inspection** and **condition survey**, as defined for example in German federal states' regulations for self-inspection and **self-monitoring**. Sewer network operators frequently find themselves facing special challenges in implementing the required inspection work. High points and low points with no valves complicate draining and venting. There

is a **danger of blockages** of the gravity system if pump operation is interrupted, with the potential for **back-ups** and flooding.

IKT research project

The IKT research project "Inspection and condition-surveying of pressure sewer lines and culverts", which was conducted by IKT jointly with more than twenty sewer network operators, found that life-cycle observation of pressure sewers is becoming ever more important. The main results provide sewer network operators and technology suppliers with better understanding of the requirements for inspection technologies, the performance of water tightness tests and the selection of rehabilitation methods for pressure sewer pipes. A qualitative risk model for prioritizing pipe-specific inspection, which is already being used by operators, is also discussed.

Research Project: Pressure Sewer Lines

Read the whole article with key research results (PDF, 7 pages)

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