Inspecting pressure sewer pipes: Potential, requirements and results

Test rig: IKT research on inspection and condition-surveying 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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