

PIPE - INSPECTOR®

Cable-less TV Inspection of Pipelines
with Integrated Leak Detection

Potable Water
Wastewater
Oil
Gas
District Heating

PIPE-INSPECTOR®

Cable-less TV-Inspection of Pipelines with Integrated Leak Detection

For Potable Water, Wastewater, Oil, Gas and District Heating Pipeline Systems

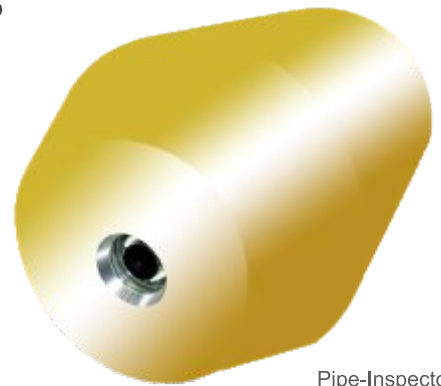
What is the purpose of Pipe-Inspector®?

Pipe-Inspector® now allows the cable-less and complete optical and acoustic inspection of transport pipelines without interrupting operation. In contrast to wired TV-inspection systems, this procedure operates wirelessly, so that a continuous inspection of long sections is possible up to 50km length.

Pipe-Inspector® overcomes 90° bends and is used in pipelines from DN 100 to DN 3000 regardless of the material. Pipe-Inspector® is applicable in hard-to-reach pipelines such as airports, highways, industrial or other access sensitive areas. Thanks to a pressure resistance of up to 100bar Pipe-Inspector® can be even used to inspect hydropower pipelines e.g. within the scope of commissioning inspections.

- High daily output
- Environment-friendly
- Low staff expenses
- No pre-cleaning
- Suitable for potable water

Suitable for all materials and fluids



- Optical TV inspection
- Sound recording for detection of smallest leakages with pinpoint accuracy down to 10l/h at 5bar
- Pressure recording along the entire pipeline's length
- Turbidity measurement (optional)
- Conductivity measurement (optional)
- Temperature measurement
- Length measurement including meter display
- Video in HD-quality

How does Pipe-Inspector® work?

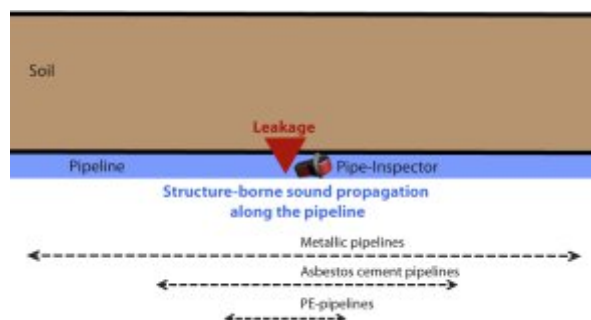
Pipe-Inspector® floats battery powered and cable-less in the pipeline fluid providing continuously data from inside for determining the pipeline's condition without excavation or pipe cutting.



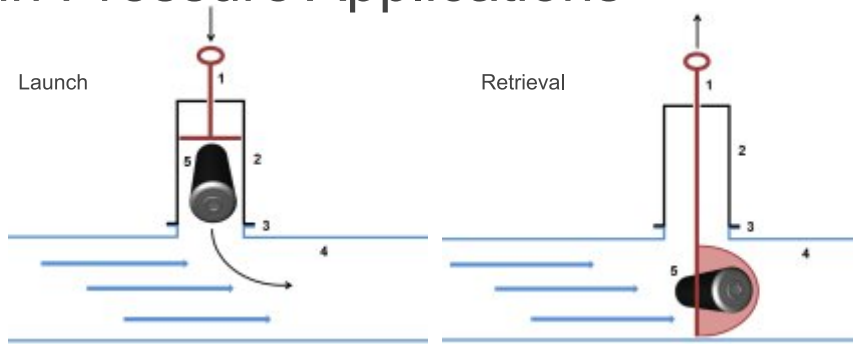
Detection of plastic pipelines by Pipe-Inspector®

Locating Leaks in Plastic Pipes

Pipe-Inspector® records structure-borne sounds directly at the leakage position **regardless** of the pipeline's **diameter and material**.



Launch and Retrieval in Pressure Applications



Via existing fittings Pipe-Inspector® is launched into the pipeline, in pressure applications by means of a special insertion sluice gate and removed again for data evaluation at a predetermined end point.



Potable Water

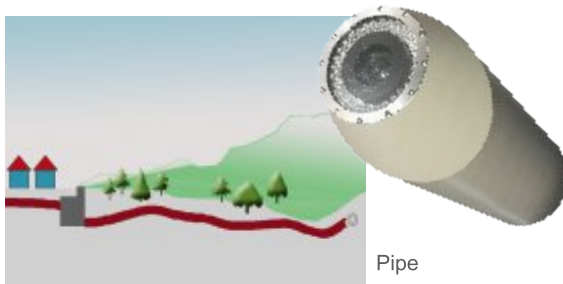
Inventory data of pressure pipelines are often patchy available. Data of installation fittings, connectors, peaks and low points, pressure recordings under operating conditions and condition assessment of the pipeline are often entirely missing. The optical inspection with integrated leak detection over long distances during operation is a world innovation.

Pipe-Inspector® delivers the data for system condition assessment and a reliable basis for further economic decisions, risk management and evaluation.

- DN 50 - DN 3000, bend-capable, up to 50km
- Pressure pipelines up to 100bar
- Cable-less TV inspection
- Acoustic leak detection
- Pressure recording over total pipeline length
- Length measurement including meter display
- Temperature measurement
- Damage protocol including pictures
- Video in HD-quality
- Battery charge for 5 - 50km inspection
- Protocol section by section

Wastewater Pressure Pipelines

Wastewater pressure pipelines with only a few manholes at large distances, with bends, peaks and low points are a real challenge when it comes to their inspection and condition assessment. Pipe Inspector® offers a whole new spectrum of opportunities for the pipeline examination and maintenance.



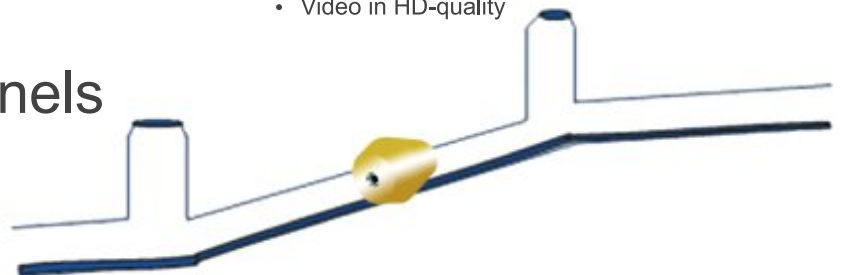
- DN 50 - DN 3000
- Pressure pipes up to 100bar
- Cable-less TV inspection
- Acoustic leak detection
- Detection of deformations and peaks
- Length measurement including meter display
- Damage protocol including pictures
- Video in HD-quality

Wastewater Open Channels

Sewer Pre-Inspection



Due to its autonomous concept and daily capacities from 10 to 20km inspection length Pipe-Inspector® reduces significantly the personnel cost for inspection works.



- DN 150 - DN 3000
- Min. 4cm water level in the sewer
- Damage detection
- Length measurement including meter display
- Damage protocol including pictures
- Video in HD-quality
- Evaluation acc. to EN Standards
- Protocol section by section

Gas

Finding defects and vulnerabilities before taking a pipeline into service is essential for the maintenance and improvement of high quality standards.



Pipe-Inspector® Gas



Pipe-Inspector® Launch into Gas Pipeline

Hydropower

Pipe-Inspector® acoustic leak detection pinpoints smallest leaks.

The inspection of newly installed hydropower pipelines ensures that no deposits or sediments may affect the operational conditions.



Hydropower Pipeline DN 2000 Inlet



Pipe-Inspector® Launch into Hydro-power Pipeline



Leak Detection in a Hydropower Pipeline DN 2000, Length 3,300m



Pipe-Inspector® Retrieval at Francis Turbine

Technical Data

Video	Full HD, wide angle, max.1920x1080p@30fps
Recording length	2-10h, depending on type and battery capacity
Supply	Li-Ion battery
Light	LED ring
Acoustic leak detection	Microphon 70-4.000Hz
Temperature measuring range	0-70°C
Pressure measuring range	0-100bar
Path measurement	Accelerometers
Detection signal	512Hz or 33kHz
Explosion protection	ATEX
Conductivity measurement	Optional
Turbidity measurement	Optional
Casing material	PE, stainless steel, depending on type
Data transfer	USB 2.0



MTA Messtechnik GmbH
Handelsstraße 14-16
A-9300 St. Veit an der Glan
T +43 4212 71491
F +43 4212 72298
www.mta-messtechnik.at
office@mta-messtechnik.at