WORLD WIDE WATER

MTA MESSTECHNIK GmbH

AUSTRIA

AIR-WATER-JETTING LW87

Cleaning of Pressure Pipelines

EPC EUROPEAN PIPELINE CENTER®

AIR-WATER-JETTING LW87

APPLICATIONS

MTA Air-Water-Jetting LW87 is a very reliable and effective cleaning procedure which can be used almost everywhere without any structural measures.

- Potable water pressure pipes
- Wastewater pressure pipes
- From 1/2“ up to DN 1400
- Maintenance cleaning
- Initial cleaning before commissioning

incrusted water pipeline

BENEFITS

- No use of chemicals
- No turbidity of potable water
- Improves valves operation
- Relieves pumps in pressure pump pipelines
- Saves energy costs
- Daily performance of several km possible
- Documented measurement of cleaning degree

PROCEDURE

The selected cleaning section is shut off from the rest of the network.

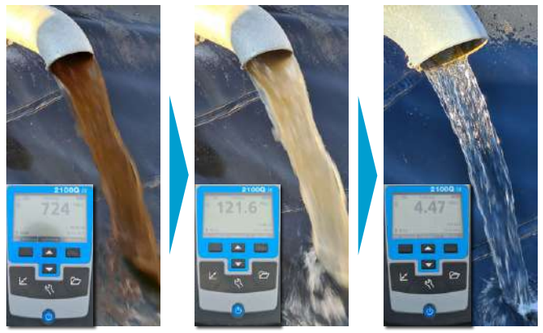
Based on the network parameters, the cleaning section is supplied with air (cooled - oil-free - sterile) in a controlled manner via a hydrant, which is provided by the computer-controlled air preparation unit of the LW87 system.

The air-water mixture reaches very high flow velocities. The cavitation effects that occur cause a jet effect, which removes the deposits from the pipe walls.

Deposits such as iron, manganese, lime, humus, sludge, sand and other sediments are gently dissolved and removed from the pipe network using MTA Air-Water-Jetting LW87. The process is a constant pressure process (without pressure surges), whereby the pressure is always set lower than the nominal operating pressure, so there is no risk of pipe bursts.

The Air-Water-Jetting LW87 system does not exert any additional stress on the pipe network, so there is no risk of mechanical pipe bursts.

In the latest generation of the LW87 system, with the newly developed „Runtime” mode, several cleaning cycles are available, which are specially designed for the relevant pipe material, diameter and length.



Checks of the turbidity values provide clear information about the progress and success of the cleaning process.

The final pipe flushing is done through hydrants and drains. At end lines the air-water mixture is flushed out through house connections.

MOBILE CLEANING SYSTEM LW87

MEASUREMENT TRAILER CONSTRUCTION AND SERVICE

AIR-WATER-MIXING DEVICE

- Air supply
- Air cooler
- Air filter system
- Disinfection system

CONTROL SYSTEM

- Electronic pressure regulator
- Air volume meter
- Automated control process
- Temperature display
- GPS receiver
- Voltmeter, 12 Volt gel batterie and charger

HISTORY

As early as 1985, Marko Taferner and the company Läckage Analys AB in Ystad, Sweden, carried out initial tests as part of a water loss analysis, introducing a large amount of air into the pipe system.

The results showed that this loosened the manganese deposits in the supply pipe. This was practically the birth of the LW87 air-water-jetting system. Läckage Analys AB brought this so-called constant pressure flushing process, as we know it today as the MTA LW87 system, to market maturity as early as 1987. The impulse flushing process that had been in use until then was abandoned due to uncontrollable pressure surges and the resulting pipe bursts. In 2015, the process was expanded to include „runtime“ mode (predefined cleaning cycles).

IMPORTANT NOTICE

It is not effective only to blow a uncontrolled air-water-mixture into a pipeline.

It is the technology of the Air-water-jetting LW87 system that guarantees the best possible cleaning results.

MTA LW87 is based on an optimized airwater ratio for the respective pipe diameter, combined with a project tailored control system and the long experience of our experts.

PROJECT EXAMPLE

RAW WATER PIPELINE

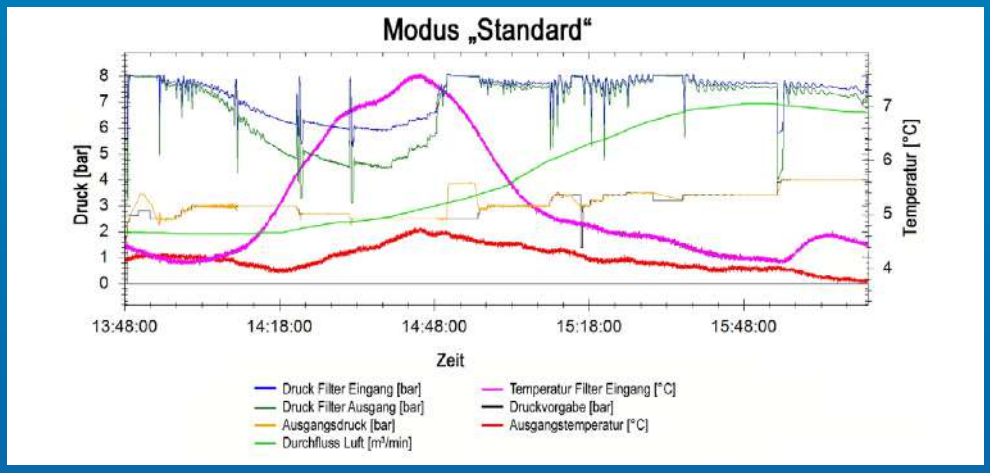
- 1.5km length
- DN 150
- AC-GCI
- No treatment plant
- 15 years of operation
- 7.5bar pump pressure

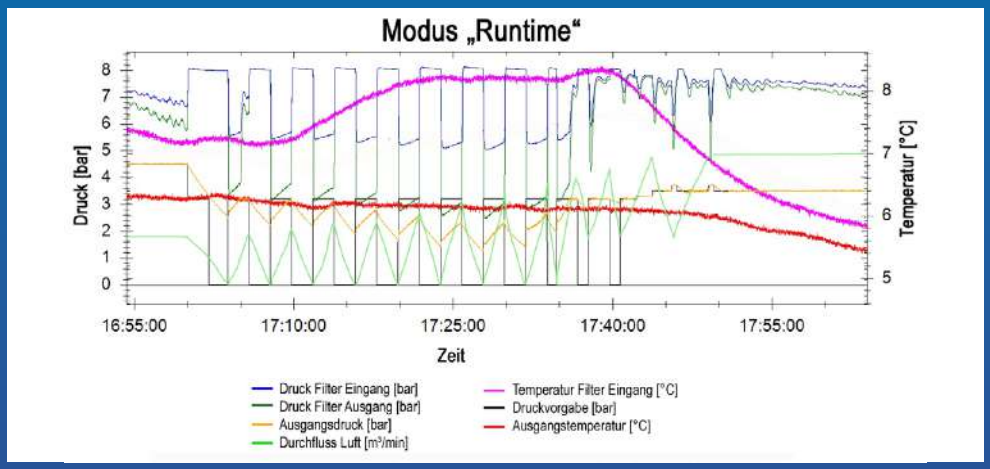
CLEANING RESULTS

- removal of sediments e.g. gravel, sand, iron and manganese
- 2.5bar pump pressure

In this practical example, cleaning saved more than half of the energy costs and significantly increased the service life of the pumps.

DOCUMENTATION





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