

# AIR-WATER- JETTING LW87



**CLEANING**  
Of Pressure Pipelines



# AIR-WATER-JETTING LW87

## APPLICATIONS

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
- Documented measurement of cleaning degree

## PROCEDURE

The selected cleaning section is shut off from the rest of the network. From a fire hydrant, based on the network parameters, cooled, oil-free and sterile air is introduced under controlled conditions, provided by the LW87 air conditioning system. Reaching very high flow rates the air-water mixture initiates cavitation which causes a jet effect removing the sediments from the pipe walls.

Sediments such as iron, manganese, humus, sludge, sand and others are gently detached by Air-Water-Jetting LW87 and finally removed from the pipeline network. Air-Water-Jetting LW87 is a constant pressure procedure, carried out at lower pressures than the normal operating pressure, evenly and without water hammer, so there is no risk of pipe bursts.

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



**BEFORE**

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



**AFTER**

# MOBILE CLEANING PLANT LW87

## MEASUREMENT TRAILER CONSTRUCTION AND SERVICE

### AIR-WATER-MIXING DEVICE

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



Project - Essbio, Chile



### CONTROL SYSTEM

- Electronic pressure regulator
- Air volume meter
- Automated control process
- Temperature display
- GPS receiver
- Voltmeter
- 12 Volt gel battery
- Battery charger



## HISTORY

In 1985 Marko Taferner has performed the first tests with the company Läckage Analys AB in Ystad, Sweden, within the framework of a water loss analysis. Thereby was introduced a larger amount of air into the pipeline system. The results showed that the manganese deposits in the water main were loosened.

This event marked the birth of Air-Water-Jetting. Already in 1987 Läckage Analys AB brought this constant pressure flushing procedure to market as we know it today, as system MTA LW87.

The common impulse flushing procedure, which was used until then, was finally abandoned due to uncontrollable pressure shocks and consequential pipe bursts. In 2015 the procedure has been extended to the „Runtime“ mode.

## ⚠ ATTENTION

It is not effective only to blow a uncontrolled air-water-mixture into a pipeline. It is the technology of the system LW87 that guarantees the best possible cleaning results.

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



# EXAMPLE

## RAW WATER PIPELINE

- 1.5km length
- DN 150
- AC-GCI
- No treatment plant
- 15 years of operation

7.5bar pump pressure

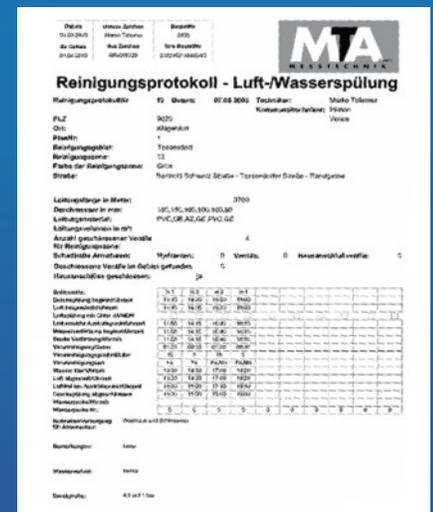
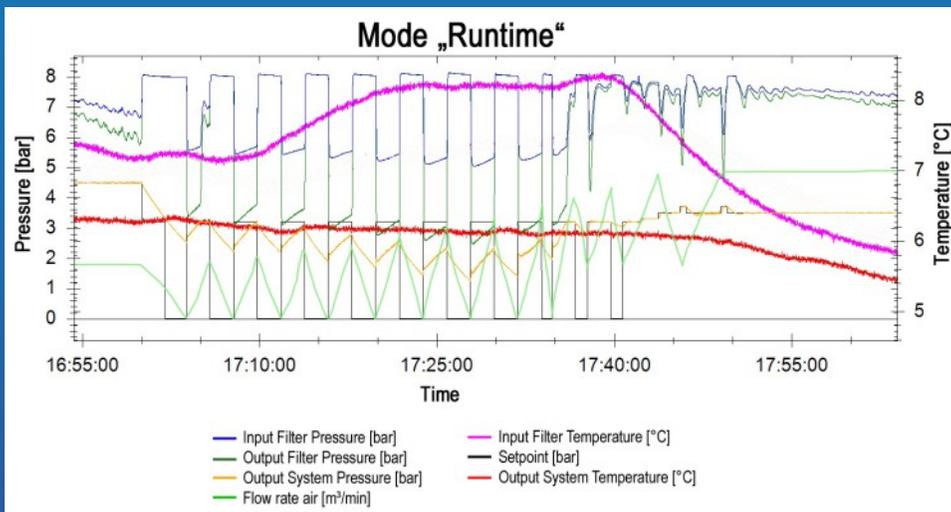
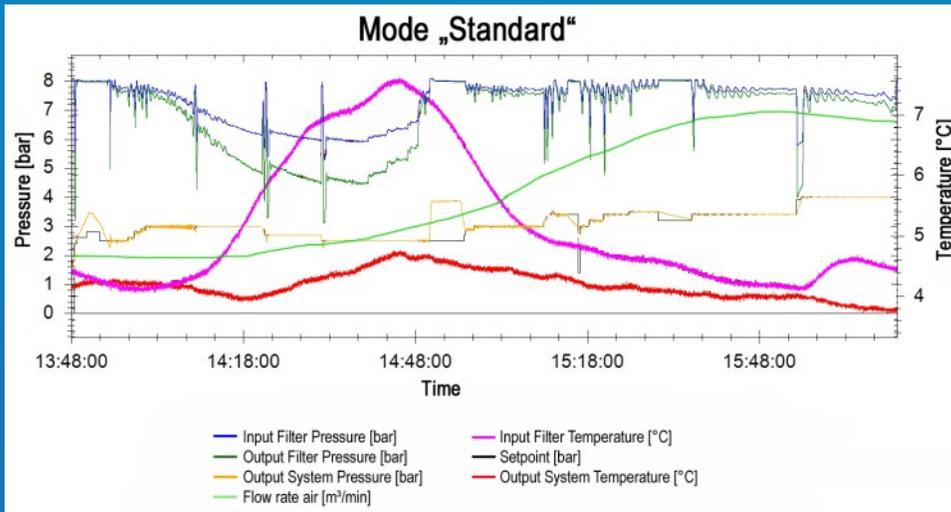
## RESULT AFTER CLEANING

- Removal of gravel, sand, iron and manganese

2.5bar pump pressure

More than 50% of the energy costs could be saved and a longer lifetime of the pumps was achieved.

# DOCUMENTATION



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