

Pressure Optimization

The automatic pressure optimization module minimizes the leakage and operational cost in the water distribution network. The inlet pressure is constantly adjusted to be as low as possible, taking into account the amount of water that has to be supplied to the consumers in the net.



Reduces water loss, electricity consumption and CO₂ emission with 10-15%

SAVINGS AND BENEFITS:

Reduction in water loss:	10-15%
Reduction in electricity:	10-15%
Return On Investment:	< 2 years
Reduction in water loss:	10-15%
Reduction in chemicals:	10-15%

POWERED BY AQUIS:

The module uses the Aquis model. This ensures:

- correct calculation of time delays in the network
- Correct calculation of network capacities and reservoir flexibilities, ensuring correct optimization, for example in the morning
- Optimization using fluctuating electricity prices
- Easy, quick and affordable start-up



The Pressure optimization module takes into account the fluctuation of consumption in the net, and automatically provides the set-points for the pumps or pressure control valves ensuring a supply pressure that is 'just' good enough.

Operational stability and cost savings

The automatic Pressure optimization will according to experience reduce your Leakage level with approximately 10-15%, reducing your water loss, and associated cost of production and chemical treatment, but also reducing the pumping cost and subsequent CO₂ emission.

The module requires limited or no operation. Training in operating the system is not required. The module is in operation around the clock. Save money all the time – every single day of the year.



Overview of consumption

The automatic Pressure optimization module uses SCADA data from the water distribution network, creating the best possible basis for optimization. It takes into account the common operational changes, such as valves being opened or closed, large consumers with varying consumption, and variation at weekends and holidays.

Unusual operational interruptions will also be included in the calculation, giving you the right picture of the operation all the time.

Aquis Pressure Optimization utilizes consumption data based, for instance, on weather forecasts automatically downloaded from the Internet. This results in very accurate optimization.



Aquis Real-Time

Your existing Aquis model can be utilized directly. If you are using an alternative modeling tool, this model can be transformed into Aquis.

Implementation of the automatic Pressure optimization requires no knowledge about the operation of Aquis.

The Aquis Real-Time functionality can be added, enabling a full and dynamical presentation of Pressure, consumption and flow in the network. This gives you the perfect overview and tells you a lot about the operation of your network. The Aquis Real-Time functionality can also be utilized to send calculated data into the SCADA system. This expands the overview and may postpone or eliminate the requirement for adding new, costly measurement points.

Aquis is today the most widely used real-time simulation tool for water distribution networks – worldwide.