

DRINKING WATER SUPPLY NETWORK: Checking and improvement of the efficiency by sector

Customers: water companies or companies of services (Water International Management, Fluidis, Water company of Marseille, SFDE,...)

Sites: Large cities distribution networks of drinking water (Paris and its suburbs, Bogota, Ho Chi Minh, Paris, Kampala in Uganda, Montegobey in Jamaica...)

Description of the application:

The efficiency of a drinking water supply network (quantity of distributed and invoiced water compared with the volume of produced water) is an obvious indicator of its quality and it is important for the control of the service and of its costs. The task is neither easy nor immediate because of the great number of interconnexion. The flow in some sections can be bi-directional.

A campaign starts with an inventory of the means and a cartographic analysis of the network which will be split into sectors. On each sector, input flows and output flows will be measured. The flow measurement by clamp-on probes is a very effective mean. When a leak is found, it is located by means of listening (acoustic correlator).



Description of the equipment:

The campaigns often associate flow and pressure measurements. Their usual duration, by sector, is one week. They are especially carried out the night, which explains need for battery life and records on internal or external data logger.

The MINISONIC P and DigiSonic E+ are two very effective portable flowmeters.

Associated with micro-structures probes ref. SE-1515 or SE-1599, depending on the nature and the decrepitude of the network, and with magnetic supports or straps, the MINISONIC P offers reliability, robustness, watertightness (IP 68) and a minimal consumption. It will be associated with an external data logger.

DigiSonic E+ has a function of echo visualization, which is very useful on the field, and an integrated data logger.

Particular technical specifications:

The clamp-on probes allow a fast and easy installation without drilling the pipes and pressure loss. The converters can be connected to an external battery for a very long series of measurements, the battery life of the MINISONIC P being already of almost 40 hours. The recorded data can be then restored on a spreadsheet for a detailed analysis.

