

## Drinking Water Monitoring

Analytic solutions for drinking water systems help to increase efficiency of the water treatment process and improve safety of drinking water networks.

Typical drinking water treatment plants consist from pre-treatment, coagulant dosing, particle removal, filtration, disinfection and from a distribution network.

Drinking water treatment plant inlet is usually monitored for TOC, T/pH, alkalinity, colour and turbidity. A spectrometric system in combination with electrodes is an ideal tool for this job. An automatic sampler must be provided as well.



Toxicity of source water caused by biologic or chemical contaminants is a growing concern. Special threat is pollution by Coli bacteria and Algae. While standard laboratory methods need days to create a warning, on-line analyzers can detect pollution quickly.



Turbidity of water is removed by means of coagulants and consequent filtration. Coagulants and Floculants allow to get rid of turbidity. Proper coagulant dosing is determined in laboratories usually using jar methods or zeta potential instruments.

Once optimal coagulant dosing has been determined this can be kept stable by online instrumentation for dosing of coagulants. The method is streaming current monitoring. The streaming current monitors are controlling coagulant dosing to control the dosing.



Drinking water quality is achieved by sand filters. The filtration system is monitored by turbidity monitor and particle counters to optimize cleaning cycles of the filters.



After the sedimentation iron or aluminium analyzers are monitoring metallic pollution of the water.

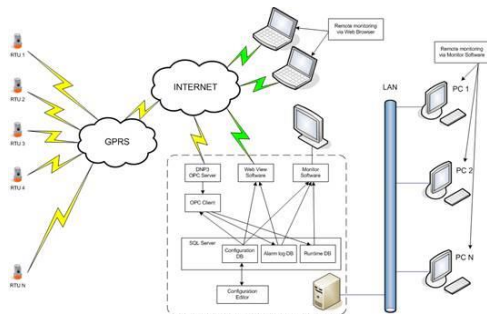
Growing concern is drinking water security and safety. Optimal instruments for this are spectrometric probes generating an instant alarm if unusual water pollutants appear.



These instruments can be extractive, or installed directly into the pressurized water pipes.



To keep water losses under control, clamp on ultrasonic flow monitors allow to keep a track of leakages and provide early warning in case of a damaged infrastructure.



Data collection and interpretation modules allow to create "Smart Water Grids" to optimize economic and safety requirements for modern distribution networks.

With detailed information on solutions of your interest we are gladly available on our contact:

**ECM ECO Monitoring, a.s.**  
Nevädzová 5, 821 01 Bratislava  
Slovak Republic

Tel.: +421 2 4342 9417  
E-mail: [ecm@ecm.sk](mailto:ecm@ecm.sk)  
[www.ecmonitoring.com](http://www.ecmonitoring.com)