

## It's All About Better Drinking Water Quality

Bristol Water, which relies on dissolved ozone for the disinfection of potable water, is using an innovative dissolved ozone monitor to improve its drinking water quality. The UK water company chose the Q45H/64 analyzer from Analytical Technology Inc., Collegeville, PA, for the on-line monitoring and control of ozone levels in drinking water. The analyzer has reduced the amount of energy required for the ozone disinfection process, thus minimizing costs while improving the quality of drinking water, which currently ranks among the best in the world.

Ozone is considered to be the strongest standalone oxidizer available for water treatment. It breaks down pesticides, kills micro-organisms, and removes unwanted color, leaving no taste, odor, or dangerous chemical residues. It works quickly, with the oxidization process taking only two seconds. Traditionally, ozone production has been monitored and controlled using redox analyzers, spectrophotometers, amperometric monitors, and colorimeters, which have been criticized for their lack of sensitivity, expense, complication of use, and inefficiency.

The Q45H/64 has been engineered to provide accurate and reliable ozone measurements down to PPB levels. Accurate calibration using a PPB traceable titration method ensures the monitors accuracy. Additionally, the monitor requires minimal operator attention and has a lower cost of ownership compared to other dissolved ozone monitors on the market. Also, with the assistance of Analytical Technology Inc., Bristol Water has been able to modify the monitors on-site, leading to considerable reduction of oxygen consumption from six metric tons daily to between three and four metric tons. The company has been able to maintain this improvement in the water treatment process, too, and such a large scale reduction in ozone demand has meant considerable savings for the company.

Bristol Water says the reduction in ozone usage per day is due to several factors. It gives credit to a new diffusion system and dosing controls, which it says disperse the ozone in a more uniform pattern. The result is a more stable residual that is accurately measured by the Q45H/64.

More information on the Q45H/64 is available at [www.analyticaltechnology.com](http://www.analyticaltechnology.com).

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