

Chlorine consumption monitoring in waste water treatment research, TU Dresden

The problem

The Technical University Dresden researches disinfection and treatment processes for waste water. The various experiments comprise treatment steps with electrolytically produced Chlorine. During the short-term treatment steps the Chlorine consumption had to be monitored with an online measurement.

The challenge

- Reliable measurements despite high and changing levels of pollution and intermittent use
- Compatibility with the electrolysis process
- Quick polarisation after start-up
- Automatic compensation of the pH-influence on the Chlorine measurement



Our solution

The measurement system uses sensors with gold electrodes in direct contact with the test water. The system contains no membranes that can clog or tear. All materials in contact with the water samples are made from gold or glass and are therefore immune against chemical or biological corrosion.

The metal surfaces of the electrodes are kept clean automatically with our patented Automatic Sensor Cleaning ASR, so that each day of tests starts with identical measuring conditions. pH is measured and its influence on the Chlorine measurement compensated automatically. The flow cell allows high throughput and offers little flow resistance, so that particles do not precipitate in the flow cell. Large openings prevent clogging of the flow cell.

Customer's feedback

„Measurement and automatic cleaning work efficiently since this system was installed. The system provides a reliable and easy-to-use way to monitor the Chlorine consumption, so that we can focus on our own work of optimising the treatment processes. This was our first contact with Dr. A. Kuntze GmbH, and we are quite pleased with both the product and the company”

Dr. Viktor Schmalz, scientific researcher, TU Dresden, Institute for water chemistry

