

# Automated Control Solutions for Cooling Systems

The Strantról® 930 controller provides total cooling system control while allowing operators to efficiently and effectively manage and communicate results. The Strantról® 930 system combines a complete monitoring and control package, remote-access software and unmatched service and support.

## Process Overview

Increasingly stringent environmental regulations and the desire for continuous improvement in cooling water system management requires changes in the basic approach to cooling water control. Controlling cycles of concentration and automatically maintaining the precise chemical balance in recirculated water systems are essential for preventing scale buildup, corrosion and microbiological fouling of critical heat exchange equipment. You need the best controller available to achieve accurate, dependable control of your system. An investment in a Strantról® 930 control system yields maximum, automatic cooling water system performance while minimizing operating costs, man-hour requirements and variability.

## Strantról® Control Systems

The Strantról® 930 controller monitors and controls pH, cycles of concentration, biofouling and the feeding of treatment chemicals via five control modes. The unit may additionally be configured to track chemical inventory levels and process control signals. All values, alarms and keypad entries are logged and available for local and remote downloading and graphing.

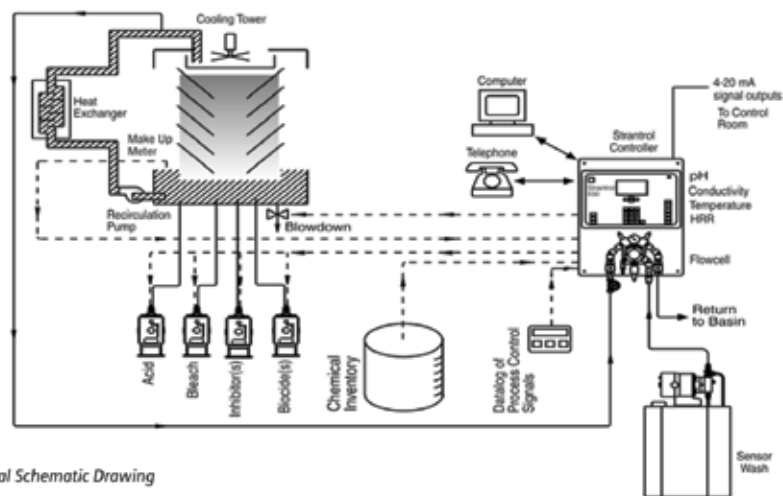
Configurations include single tower, single tower with make-up monitoring, satellite chemical feed to critical exchangers, and dual tower control models. By incorporating the knowledge gained from more than 50,000 Strantról® system installations worldwide, the Strantról® 930 system provides total cooling water system control management.

### Key Benefits

- Automatically ensures the proper chemical feed rate and reports chemical inventories and process control information of system performance.
- Datalogging software allows you to manage your system automatically for 24-hour surveillance.
- Reduces your manpower to perform more critical tasks.
- Technical support can troubleshoot system remotely whenever you need it.



## Application Note



### Total Control: Cooling Water Systems

Recirculated cooling water systems can concentrate the solids and nutrients in the water, creating scaling, corrosion, and microbiological problems. This can reduce heat transfer rates, restrict water flow, and lead to higher operating and treatment costs.

By accurately monitoring and controlling cooling water chemistry, the Stranrol® 930 system provides reliable system management on-site and through

remote access. The Stranrol® flowcell contains three sensors for continuous measurement: pH, conductivity/temperature, and oxidation reduction potential (ORP). Sensors specially designed for industrial applications, and equipped with automated sensor wash, keep the system highly accurate and reliable at all times.

The Stranrol® 930 system automatically ensures the proper chemical feed rate and reports chemical inventories and process control information to effectively manage and communicate cooling system performance.

Overfeeding chemical oxidants can dramatically increase corrosion rates. The goal is to deliver the precise amount of oxidant needed to achieve microbiocontrol without overfeed. To address the problem of erratic chlorine/bromine demand in recirculated systems, the Stranrol® 930 controller, like many Stranrol® systems, uses High Resolution Redox® sensing technology. HRR® sensing is the most precise method of microbiological control available in cooling water system today.

### Precise Control, Continuous Improvement

Stranrol® systems increase the overall efficiency of cooling towers, improve heat transfer rates, throughput rates, and energy savings. The datalogging and graphing features of the Stranrol® 930 controller support continuous improvement by allowing operators to track performance over designated intervals, take “snapshots” of real-time conditions, and make system adjustments locally or remotely via modem. When granted security access, your water treatment chemical supplier and Siemens Water Technologies’ technical personnel may remotely troubleshoot and adjust control—with a complete log of all access and adjustments recorded. Eight user-defined control relays on the Stranrol® 930 controller provide flexibility and efficiency for full cooling system management—and the system has the flexibility to further expand capabilities and control. The Stranrol® 930 controller provides precise cooling system control while offering the best available method to manage and communicate system performance.

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