

Cooling water treatment

Scale, corrosion and microbiological control are the same water and the same programme. We dose to a saturation index we measure on site, with Legionella management built on SANS 893 principles.

Open towers and closed loops

Measured saturation index

SANS 893 principles

Level 2 B-BBEE | 300+ sites served nationally | Treating industrial water since 1998



Innovative Water Solutions

What a Prosep cooling programme covers

A cooling system fails three ways: it scales, it corrodes, or it grows things — usually all three at once, because the conditions that suppress one problem feed another. Run it too concentrated and scale comes out on your hottest surfaces; run it too lean and you pay for water and chemicals you do not need.

Prosep runs cooling water as a controlled chemical system, for open recirculating towers, closed loops and chilled-water circuits alike.

Scale

Run too concentrated and calcium carbonate comes out on your hottest, most expensive surfaces.

Corrosion

A corrosion failure inside a circuit nobody was monitoring — in the pipework or the exchangers.

Microbiological growth

Biofilm on the exchangers, and a Legionella risk with your company's name on it.

The programme, stage by stage

Stage	What it does
Scale control	Phosphonate and polymer chemistry selected for your water, cycles and skin temperatures — maximum cycles, minimum blowdown, without crossing the line where scale wins.
Corrosion control	Inhibitor programmes matched to the metallurgy in the circuit, and verified in the water analysis on every visit.
Microbiological & Legionella	Oxidising and non-oxidising biocides with dip-slide and plate-count monitoring, and Legionella risk management built on the principles of SANS 893.
Water efficiency	Pushing cycles of concentration safely upward is the cheapest water saving most sites have — and it is a chemistry problem.

1998

Treating industrial water since

300+

Sites served nationally

132 million

Litres treated daily

Level 2

B-BBEE contributor

02 COOLING WATER TREATMENT Systems and equipment

Common cooling systems

- Open recirculating — condenser cooling towers
- Closed recirculating — engine and chilled-water circuits
- Once-through cooling
- Problems: scaling, corrosion, fouling, microbiological growth

Dosing equipment

- Chemical dosing pumps
- Bleed-off control: solenoid valves, conductivity probes and controllers
- Water meters
- Filtration systems



PROOF — COOLING WATER CHEMISTRY

Plastics moulding plant, Pretoria

PROBLEM

Corrosion through a roughly 2 m³/h cooling water circuit damaging production moulds, which were going out for polishing at around R3,000 each.

PROGRAMME

A cooling water chemistry programme designed for the circuit and the mould metallurgy.

RESULT

System fully operational; corrosion problem resolved.

NEXT STEP

Book a site assessment

We survey your systems, sample your water and map the risks to uptime, yield and compliance — then state exactly what we would do, and prove it with your own plant's data.

- 01 We assess the site and take the analyses
- 02 You get an engineered programme, costed before you commit
- 03 We implement, monitor and report against the targets

Have this ready and the first visit goes further

- Recirculation rate and system volume
- Make-up analysis: hardness, alkalinity, chlorides, conductivity
- Heat load and temperature drop across the circuit
- Current cycles of concentration and bleed-off control
- Circuit metallurgy
- Current biocide regime and any Legionella records

Talk to us

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Visit

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