

# Best-in-Class Seawater Cooling

Optimizing Cost and Performance for Reliable Process Cooling

Mitigate reliability threats posed in seawater systems with Nalco Water's suite of proven chemistries and robust equipment. With a seawater capable 3D Trasar™ Premium Plus, sites can gain instant visibility into treatment dosage rates and control, scale deposit risk and bacterial growth.

Armed with 3DT435 and PURATE™, your system will then have the means to navigate scaling and microbiological fouling risks that diminish heat exchange efficiency.

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## 3D TRASAR Technology for Cooling Water Premium Plus

### MONITOR & CONTROL

Seawater-capable sensing, onboard probes and analyzers, and ECOLAB3D™-powered dashboards deliver early detection of deposition and precise chemistry control.

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## 3D TRASAR 435

### SCALE & DEPOSIT CONTROL

Manage mineral scale threats with this scale inhibiting polymer designed specifically for seawater systems. Gain tight dosage control with the 3D TRASAR controller.

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## PURATE On-Site ClO<sub>2</sub> Generation

### MICROBIOLOGICAL CONTROL

An effective biocide in seawater systems, PURATE's on-site generated chlorine dioxide controls bacterial growth to keep heat exchanger surfaces clean.

Used together, these three deliver best-in-class system performance.

Coupled with the expertise from your local Nalco Water representative, your cooling water system will be equipped with everything it needs to deliver reliable process cooling and keep your production facility at maximum output.

## What each technology brings to your seawater system



### MONITOR & CONTROL

#### 3D TRASAR™ Technology for Cooling Water Premium Plus

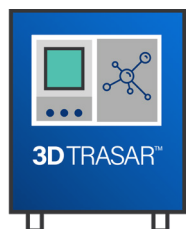
- Deposit sensor technology alerts users to heat and dissolved species conditions that can pose a scale risk to the system if left unchecked
- 3D TRASAR controllers and analyzers assess real-time chemical treatment dosage and make adjustments as needed for optimum cost and performance balance
- Accumulate asset performance data and build dashboards via ECOLAB3D™, and respond faster to upsets through alarm and notification systems



### MICROBIOLOGICAL CONTROL

#### PURATE™ On-Site Chlorine Dioxide Generation

- As a dissolved gas, ClO<sub>2</sub> penetrates through biofilms, helping recover heat exchanger and condenser performance
- Effective at pH up to 10.0 and largely unaffected by ammonia or oil contamination; less ClO<sub>2</sub> is required for similar performance when compared to more fragile biocides
- Greater than 90% total count bacteria reduction in bulk and sessile samples
- Automated safety controls, plus leak and spill alarms result in a safety-prioritized equipment system



### SCALE & DEPOSIT CONTROL

#### 3D TRASAR 435: Seawater Mineral Scale Inhibitor and Dispersant

- Contains a novel polymer developed to control calcium carbonate scaling, as well as disperse suspended solids that can cause fouling on heat exchanger surfaces
- This chemistry contains a special tag that analyzers on the 3D TRASAR can detect and use to control dosage based on the chemistry's consumption and residence time in the system