

# SCOTMAS DELTA WA

## Industrial and potable water treatment with ClO<sub>2</sub>

The Scotmas Delta WA Chlorine Dioxide Generation System is designed to produce a stream of ClO<sub>2</sub> for water disinfection applications in:

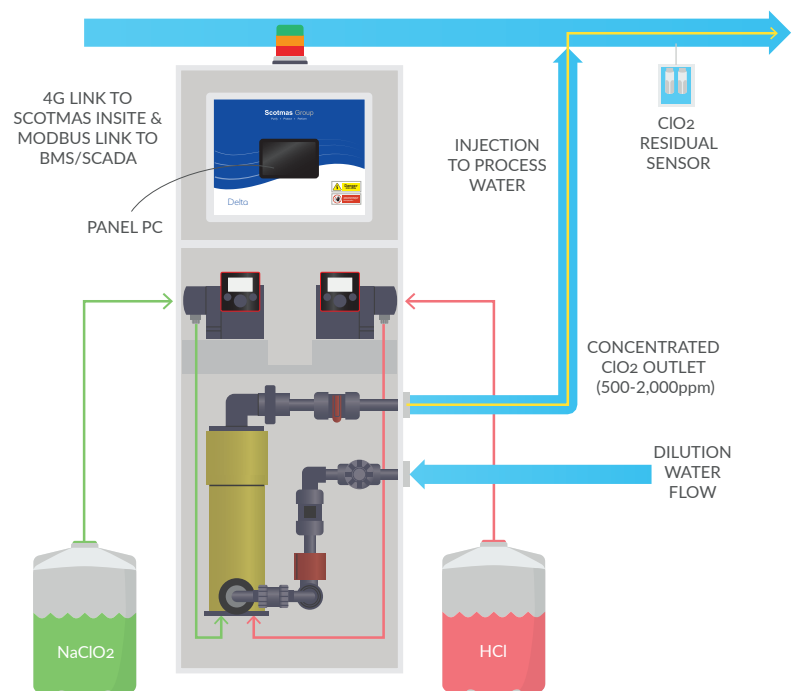
- **Industrial water treatment.** Food and Beverage Production, Mollusc Control, BOD and COD reduction prior to discharge.
- **Cooling tower water disinfection.** Remove biofilm from all wet surfaces, improve cooling efficiency, reduce running costs.
- **Wastewater treatment.** Polishing of TSE before water recycling/reuse or discharge to the environment.
- **Irrigation water disinfection.** Protect crops by eliminating viruses, bacteria, fungi, nematodes, cysts and algae from irrigation water.
- **Agricultural feed water disinfection.** Provide animals with clean water and maximise their genetic potential.
- **Potable water.** Disinfect drinking water throughout the water treatment process.

Every Delta WA system uses two concentrate precursor chemicals to produce ClO<sub>2</sub> solution on-demand from the water being treated. No storage of ClO<sub>2</sub> solution is required.

A dilution water flow carries the generated ClO<sub>2</sub> as an aqueous solution to the injection point.

Generation only takes place within a flooded reactor, providing maximum protection for system operators and users.

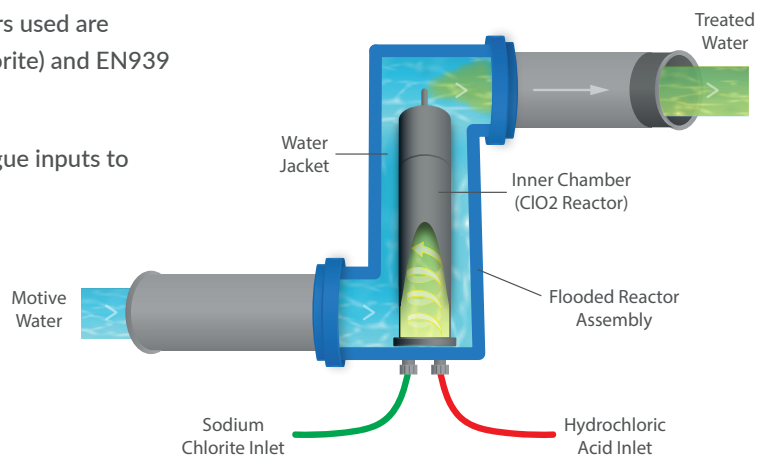
- Generation capacity up to 12 kg/hr / up to 24,000 m<sup>3</sup>/hr @ 0.5 mg/l ClO<sub>2</sub>.
- Chlorine Dioxide is dosed proportionally to the measurement from the incoming water meter.
- Technology uses concentrate precursor chemicals, 25-36% Hydrochloric Acid and 25-31% Sodium Chlorite.
- 10" HMI touchscreen offers full system control (dependent on authority levels).
- System supplied with an SIL3 rated safety relay which will shut the system down whenever a critical alarm point is reached.



## Why Delta WA?

- **SAFETY:**  $\text{ClO}_2$  is produced on demand only in a submerged reactor. Multiple safety interlocks control dosing and shut system down if parameters are breached.
- **HIGH YIELD:** Reactor efficiency >95% producing a stream of  $\text{ClO}_2$  solution and minimising chemical cost.
- **RELIABILITY:** Duty / standby auto switchover available. Scotmas Industrial Panel PC controller has been tested in multiple installations globally.
- **LOW MAINTENANCE:** Simple installation, set different operator authority levels as required.
- **DOSING CONTROL:** Residual Analyser PID dosing control maximises system flexibility and dosing accuracy.

- Two configurations are available - Bypass and Pumped Bypass. The Bypass requires a full flow bypass loop and the Pumped Bypass requires a partial flow bypass loop, usually of smaller diameter than the main water line being treated.
- All Chlorine Dioxide generation is undertaken in our unique Submerged Reactor System. The precursor chemicals are mixed within the Submerged Reactor inner chamber, located inside the flooded outer chamber. In the unlikely event of a leak from the reactor, the concentrated chemical will be instantly diluted by the surrounding water.
- Chlorine Dioxide production conforms with EN12671:2009 when the precursors used are compliant with EN938 (sodium chlorite) and EN939 (hydrochloric acid).
- Option to include digital and analogue inputs to control the system.
- Includes a variety of alarm inputs, allowing for dosing control in response to alarm signals from customer processes, timers, or stand-alone batch controllers.



## About Scotmas

Scotmas are specialist manufacturers of Chlorine Dioxide generation systems with more than 25 years' experience in the field. Operating worldwide, Scotmas are solely dedicated to Chlorine Dioxide technology and can provide all required chemical / process engineering, chemistry, microbiology, and application-specific technical support needed for successful project execution, in conjunction with strong local civil engineering and service delivery partners.