



Australian Innovative Systems Pty Ltd (AIS) is the leader in disinfection of water by the process of electro chlorination. With 38 years of industry experience AIS' success has been attributed to an ever-growing demand for new and improved water treatment systems. The main strength of the business has been maintaining a strong focus on developing innovation and eco-efficient products.

On-site Chlorine Generators designed and manufactured by AIS (Brisbane based, ISO Certified) are used for disinfection of seawater and/or freshwater and safe, environmentally friendly, less expensive, maintenance-free alternative to chemical chlorine dosing. The technology is Australian made & owned, and all commercial equipment is supplied with three years warranty.



Recycled water for irrigation of one of the Queensland's golf courses

- Capacity: 23,000 litres of waste water/day, Ecoline™ Model: FSRC-50 X 1;
- Effluent (overflow from septic tanks) collected from 20 nearby households and held in two 20,000 litre tanks prior irrigation;
- Tanks' content recirculated at 60 L/min rate through the Ecoline™ unit;
- This water is brought by Ecoline™ to "Class C" for sub-surface irrigation of a golf course.
- TDS: 384 mg/L; Chlorides: 70 mg/L (18% of Chlorides in the TDS)
- FSRC-50 chlorine gas equivalent output: 18 g/h.

There are three types of chlorine generators available from AIS:

1. Ecoline™ in-line chlorine generators are designed for various freshwater treatments including disinfection of wastewater, cooling water, some drinking water, any other freshwater applications. Ecoline™ works completely without salt and it converts small amount of minerals naturally available in the freshwater into chlorine. The only consumable is electricity.
2. Chlorogen™ self-generates chlorine on-site and off-line into a separate storage tank. Chlorogen™ produces sodium hypochlorite from salt + water or seawater and electricity. The chlorine can then be pumped from the storage tank and used to treat water.
3. Autochlor™ range of in-line chlorine generators is designed for the salt water disinfection with 3000 mg/L or more of Total Dissolved Solids (TDS). It is suitable for direct seawater chlorination.



Benefits:

1. Eliminate the dependence on commercial chlorine suppliers;
2. Avoid the risk inherent in the transport and handling of chlorine products;
3. Lower the operating costs;
4. Achieve a complete automatic process which required minimal operator attendance.
5. Chlorine output on all types of chlorine generators from AIS can be controlled within 1% accuracy by the 4-20 mA proportional signal from the Free Chlorine Analyser/Controller (any chlorine controller brand is suitable).

AIS has proven beyond a shadow of doubt, that with improved technology it is possible to use electrolysis in a variety of ways either with traditional salt/brine method or completely without the need to add salt and achieve satisfactory disinfection.

Research in the last five years or so has opened up electrochemistry as a viable avenue for better answers in water treatment in a plethora of applications.

For more information, contact us at:

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Water treatment to potable standard in Western Australian mine

- Capacity: 864,000 litres of drinking water/day, Ecoline™ Model: FSRC-100 X 1;
- Population 1200 people (including mine workers and adjacent villages);
- Filtered bore water passes through Ecoline™ prior being stored in holding reservoir;
- Ecoline™ doses 1.7 mg/L of Chlorine into the raw bore water;
- TDS: 700 mg/L; Chlorides: 150 mg/L (21% of Chlorides in the TDS);
- FSRC-100 chlorine gas equivalent output: 64 g/h.



Competition Olympic Fresh Water Swimming Pool (FINA Standards)

- Volume: 2,500,000 litres, Ecoline™ Model: FSRC-850 X 1;
- Open to weather, sub-tropical climate, operating 24/7, bather load 250 people/day, 4 hours filtration turnover;
- Ecoline™ maintains 2.0 - 3.0 mg/L of Free Chlorine Residual in the water;
- TDS: 1200 mg/L; Chlorides: 468 mg/L (39% of Chlorides in the TDS);
- FSRC-850 chlorine gas equivalent output: 1348 g/h.



Canadian food (egg) processing plant

- Capacity: 170,000 litres of trade waste water/day, Ecoline™ Model: FSRC-50 X 2;
- Waste water is held in two 3,800 litre tanks prior discharge to municipal sewer;
- Tanks' content recirculated at 750 L/min rate through Ecoline™ units;
- Ecoline™ removes pathogens and reduces: turbidity, odour, COD and BOD (e.g. BOD is reduced from 4750 to 1140);
- TDS: 2000 mg/L; Chlorides: 760 mg/L (38% of Chlorides in the TDS);
- FSRC-50 chlorine gas equivalent output: 109 g/h each unit.