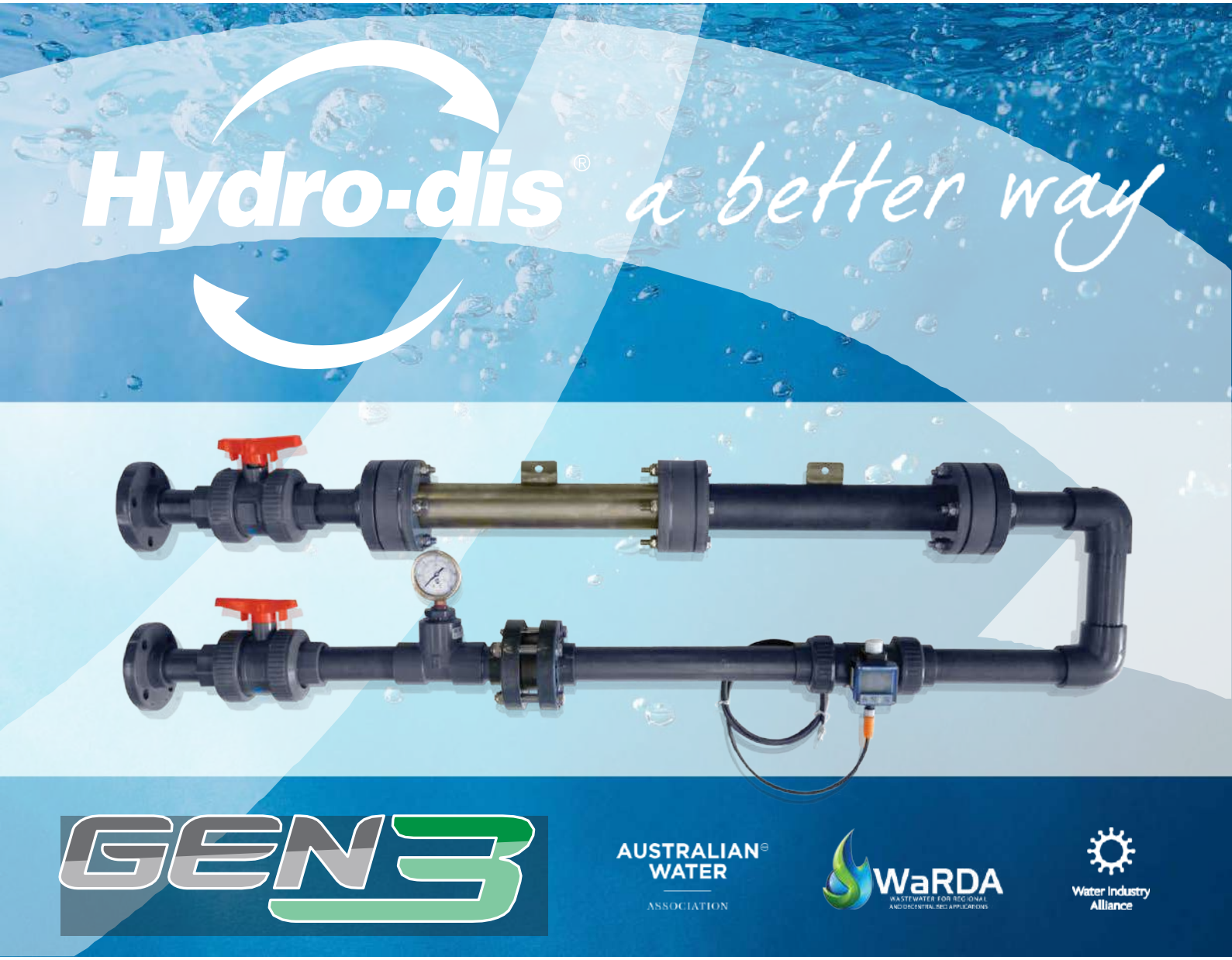

A Unique Proven Technology

The Hydro-dis® system is a unique water disinfection technique that uses the electrolytic break down of water to instantly destroy water borne micro-organisms and micro-flora, simultaneously converting chloride ions into hypo-chlorite giving a measured chlorine residual in the treated water ensuring sustained microbiological control.

The Hydro-dis® system replaces traditional disinfection techniques such as chemical dosing (Sodium Hypochlorite and Chlorine Gas), Ultra Violet Irradiation and Ozonation with a cost effective environmentally friendly, modular and portable system.

This refined and improved technology has applicability in a wide variety of water use applications ranging from Potable (drinking water) to recreational use (swimming pools, spas, ponds etc), evaporative systems (cooling towers, evaporative airconditioners etc) and wastewater applications and any application in between.

The Hydro-dis® system is specifically designed to be energy efficient, allowing isolated and remote applications to be solar or wind powered if required. As there are no moving parts, minimal maintenance and operator input is required.

Dual Disinfection

During the Hydro-dis® process, Hydroxyl Radicals (a short life powerful oxidising agent) are generated from the breakdown of water. These destroy microorganisms and instantly providing a primary disinfection. Produced simultaneously with the Hydroxyl Radicals is a measured concentration of chlorine present as hypochlorite, also a powerful sanitiser, to produce a residual disinfection in the water. This residual disinfection protects water circuits by destroying bacteria, algae, viruses and fungi therefore protecting the water circuit from the formation of biofilms and algal deposits commonly present in water.

The Hydro-dis® technology is an approved dual disinfection system under AS/NZ Standard 3666 and the Public and Environmental Health (Legionella) Regulations. In February 2017 the Hydro-dis® technology achieved the Australian Standard 4020:2005 Testing of Products for Use In Contact With Drinking Water. **The attainment of AS4020 means that the Hydro-dis® technology meets one of the most rigorous testing standards in the world for equipment used in potable water applications.**

Self-Cleaning Technology

The Hydro-dis® system can be fully automated significantly reducing maintenance inputs, through its innovative design the cell is constantly being cleaned by the water flow. The development of the self-cleaning design has enabled Hydro-dis® to increase the operational efficiency of the cells and ensure long life.

Our History

The development of the Hydro-dis® technology was begun in 2001 by our consulting engineer Rob Richardson. In 2006 Mark Carey became involved in the sales and distribution of the Hydro-dis® technology taking over the research and development of the Hydro-dis® technology in 2010 and focused upon bringing the Hydro-dis® technology to commercial reality.

How we do it

We achieved this by conducting a detailed site specific analysis and matching the revolutionary Hydro-dis® water disinfection system to the identified requirements thereby allowing Hydro-dis® to reduce or eliminate water treatment chemicals dependent upon the application.

The Hydro-dis® technology allows easy integration into existing water circuits causing minimal down time and disruption to the operation.

Due to the manner in which the Hydro-dis® system is able to be controlled the disinfection of reclaimed water occurs without the production of dangerous chlorinated by-products normally associated with chemical dosing systems.

Scalability

The Hydro-dis® system has been designed to be modular allowing an increase in treatment capacity by adding additional treatment cells. Whilst R&D is continuing to develop smaller and larger capacity units we have cells available to treat between 1,000 and 10,000 litres per hour (l/h). Dependent upon the application we may use either cells of one size, for example 3 cells each capable of 10,000 l/h to achieve 25,000 l/h requirement as opposed to 2 x 10,000 and 1 x 5,000 cells. These decisions are based on a detailed water demand analysis and customer input.

Large volume systems of up to 2M/D have been designed and are under budget consideration. Please contact us for solutions to suit your specific water volumes.

Key Features & Benefits

- Fully automated - requires only routine checking and servicing
- No calibration required
- No need to transport chemicals around the country
- No need to store chemicals on site
- Self-cleaning - longer service life and reduced operating/running costs
- Solar/wind powered options - for rural and isolated applications
- Self-contained, Portable Emergency Response Units can be deployed in Disaster relief situations (Genset, pump, filter & Hydro-dis & tank if required on a sled or in a container)
- Tends pH to neutral - reducing the need/cost for pH correction chemicals (if applicable)
- Maintains set chlorine levels
- Easy integration of the cell into existing water circuits and the electronic control into existing management systems
- Cost effective operation and maintenance programs ensure that organisations are able to meet their triple bottom line performance requirements

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