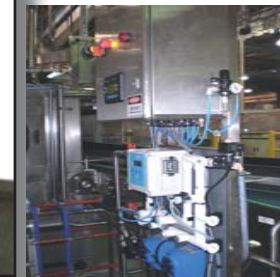


# The Cleantec Difference

- ✓ Customer Focus
- ✓ Technical expertise
- ✓ Highly qualified research and development team
- ✓ Innovative cleaning solutions
- ✓ Local knowledge
- ✓ Global transfer technology
- ✓ Turn key engineering projects
- ✓ Complete product range
- ✓ Superior products
- ✓ Professional reporting
- ✓ Total supply package
- ✓ Environmentally friendly operations



## WATER MANAGEMENT for the Food Industry



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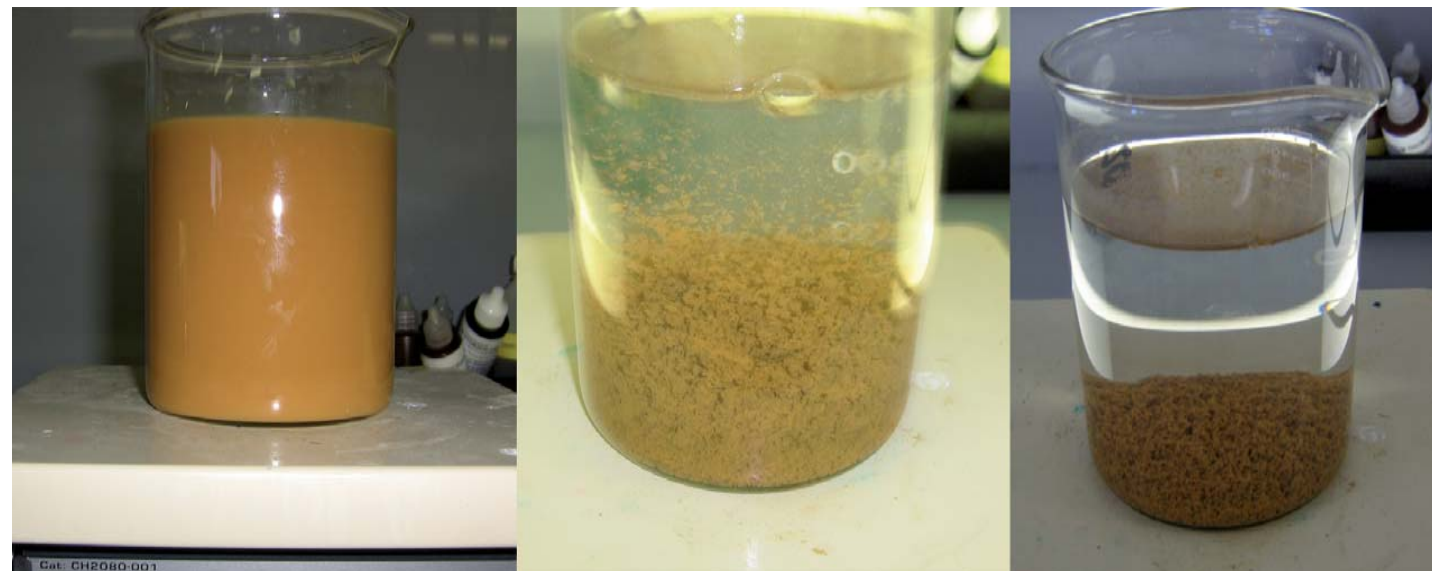
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# Water Management

*Specialising in clean and safe water for people, process and environment in the Food and Beverage industries.*



## Cleantec

Cleantec is a Campbell Brothers Ltd business and the largest Australian owned company specializing in the supply of cleaning and hygiene chemicals and systems throughout Australia, New Zealand and Asia/Pacific.

## Food Hygiene Systems

Cleantec Food Hygiene systems ongoing growth as a supplier of cleaning and sanitation outcomes to the Food industry is related to the exceptional service Cleantec has provided to and continues to offer to this industry.

Cleantec has arguably the best qualified Research and Development team in the region who have produced innovative solutions to improve hygiene outcomes for customers and currently is developing exciting new technology that will revolutionize areas of the industry in the future. This new technology will bring significant benefits to Cleantec's customers.

Cleantec's highly qualified team of Industry Specialists and Technical Representatives provide customers with a level of service that exceed expectations whether it be working with customers to ensure a clean plant or assisting them in meeting compliance standards. All this enables your people to concentrate on producing high quality products.

## Chemical Systems Engineering

Chemical Systems Engineering is an integral part of Cleantec's approach to satisfy all their hygiene and sanitation requirements by ensuring total supply of all chemicals and their dispensing systems. Key equipment design and installation includes:

- Chemical storage, handling and distribution systems
- Chemical dosing systems
- Centralised and automated foam dispensing systems
- CIP systems
- Chemical and water treatment systems

## Water Management

### Water and Waste Water Treatment Specialists

Cleantec Water Management provides a Total Water Management service for the Food and Beverage Manufacturing Industry. Cleantec provides qualified and skilled technical specialists to

- Support our chemical treatment programs.
- Ensure compliance to Regulatory standards and licences.
- Develop water conservation projects to focus on water reuse and recycle.
- Strive to always be part of our customer's savings and not their costs.
- Provide innovative solutions to difficult water related problems without compromising the integrity of the plant.
- Product development for specialised applications.

### Raw Water Treatment

For plants which do not have the luxury of city potable supply water and need to treat their own river or bore water we can supply a range of treatment chemicals such as:

- pH adjustment – caustic soda, sulphuric acid.
- Coagulants – alum, ferric chloride, polyaluminium chloride, organic coagulants.
- Flocculants – anionic, cationic, non-ionic powders and emulsion polymers.
- Disinfectants – sodium hypochlorite, chlorine dioxide
- Reverse Osmosis membrane antiscalants.

### Process Water Treatment

Cleantec Water Management specialise in Food Industry water treatment providing products and support service for specialised process equipment.

- Treatments to prevent dome staining of cans and crown seal corrosion, deposits and corrosion of equipment and biocides for slime control in bottle warmers and pasteurisers.
- Retort treatments for sanitation control and equipment protection from scale and corrosion.
- Evaporator antiscalants
- Membrane scale control, biofouling prevention and cleaners.

## Steam and Hot Water System Treatments

We supply products and support services for steam systems and hot water boilers based on BS2486 Recommendations for the Treatment of Steam Boilers and Hot Water Systems. Specialising in the Food Industry we work with products suitable for producing steam which contacts food.

- Oxygen Scavengers – sodium sulphite, tannin, erythorbate based products.
- Scale Prevention – phosphate, phosphate/polymer blends, specialised polymer blends, caustic soda.
- Condensate Corrosion Prevention – neutralising amines, non amine filmer.
- Antifoams for process contamination of boiler water
- Nitrite and molybdate based hot water boiler corrosion and scale inhibitors

## Cooling Tower Circuits and Chilled Water Systems

- Corrosion and Scale Inhibitors – all organic, molybdate, zinc and phosphate based products also containing specialist yellow metal inhibitors.
- Biocides – both oxidising (chlorine, bromine, chlorine dioxide) and non oxidisers (isothiazolin, DNPA, biguanide and others).
- Biodispersants – detergent/biocide blends to assist the action of biocides in penetrating and removing biofilm.
- Neutral Cleaners

## Waste Water Treatment

We supply products and services for DAF plants, Belt Presses, Centrifuges and Biological treatment systems. We work with the Cleantec engineering division to provide chemical and engineering solutions for waste water plants.

- pH adjustment – caustic soda, sulphuric acid.
- Coagulants – alum, ferric chloride, polyaluminium chloride, organic coagulants.
- Flocculants – anionic, cationic, non-ionic powders and emulsion polymers.
- Odour control – enzymes, sodium hypochlorite, hydrogen peroxide, chlorine dioxide.

## Program Support Services

We supply dosing and control equipment systems using quality components and designs from our Cleantec Engineering division. We also supply testing services using our associated group company ALS Laboratories.

- Regular on site testing programs and reporting.
- Cooling Tower Risk Management Plans and compliance monitoring to AS 3666
- On line monitoring and control using data logging and statistical analysis.
- Performance based controlled dosing of chemicals directly proportional to Key Performance Indicators.
- Programmed maintenance monitoring of equipment such as water softeners, demineralising plants, clarifiers, filters.
- Cooling Tower Cleaning to AS3666