



# FOOD & BEVERAGE WASTEWATER TREATMENT



## WASTEWATER IN FOOD AND BEVERAGE PRODUCTION

Managing wastewater in the food and beverage industry can be problematic for business owners. With more stringent discharge limits and subsequent rising trade waste costs, finding an affordable and effective solution can be challenging.

Aerofloat specialises in wastewater treatment for the food and beverage industry. Aerofloat's patented world-first technology uses traditional techniques combined with some clever engineering, to create low maintenance, compact and cost-effective solutions.

Aerofloat's wastewater treatment systems can help you reduce:

- Suspended solids (SS)
- Fats, oils and grease (FOG)
- Biochemical oxygen demand (BOD)
- Chemical oxygen demand (COD)



## THE AEROFLOAT OFFERING

Aerofloat is an Australian company that designs, manufactures and installs wastewater treatment systems. Aerofloat's team of engineers can manage the entire treatment process in-house, from consultation and 3D CAD design, to manufacturing, installation and ongoing support.

Aerofloat offers custom designed solutions utilising patented DAF and MBBR Aerofloat technology, as well as off-the-shelf products to address a range of wastewater treatment requirements.

Aerofloat also offers competitive chemical supply contracts and system maintenance contracts.

### Aerofloat's offering includes:

- Dissolved air flotation
- Biological treatment plants
- Screening
- Sludge dewatering
- Filtration
- Desalination

## FOOD & BEVERAGE INDUSTRIES

Aerofloat specialises in treating wastewater from food and beverage manufacturers and has extensive experience across a range of industries:

- Dairy
- Meat and poultry
- Abattoir
- Brewery
- Winery
- Bakery
- Confectionery
- Small goods
- Food packaging

# THE AEROFLOAT DIFFERENCE

## AeroDAF

### LOW MAINTENANCE

The AeroDAF has a patented scum removal system and unique double hopper design that allows it to be self-cleaning, without the need for mechanical scrapers.

### COMPACT

The AeroDAF's compact design fits into a small footprint around half the size of most traditional DAFs. Aerofloat engineers use 3D modelling to custom design a solution to address any space challenges.

### COST EFFECTIVE

The AeroDAF is designed to be mechanically simple, with a polyethylene tank and no mechanical scrapers, resulting in a cost-effective solution.

### SEALED AND VENTED

The AeroDAF is completely sealed and can be vented above the roofline, preventing any unpleasant odours.

## AeroMBBR

### EASY CLEANING WITHOUT DOWNTIME

The unique design of the AeroMBBR's aeration lances allows them to be removed for cleaning while the process is still operating. This prevents the need to drain the tank, remove the bio-media or shut the system down.

### SEALED AND VENTED

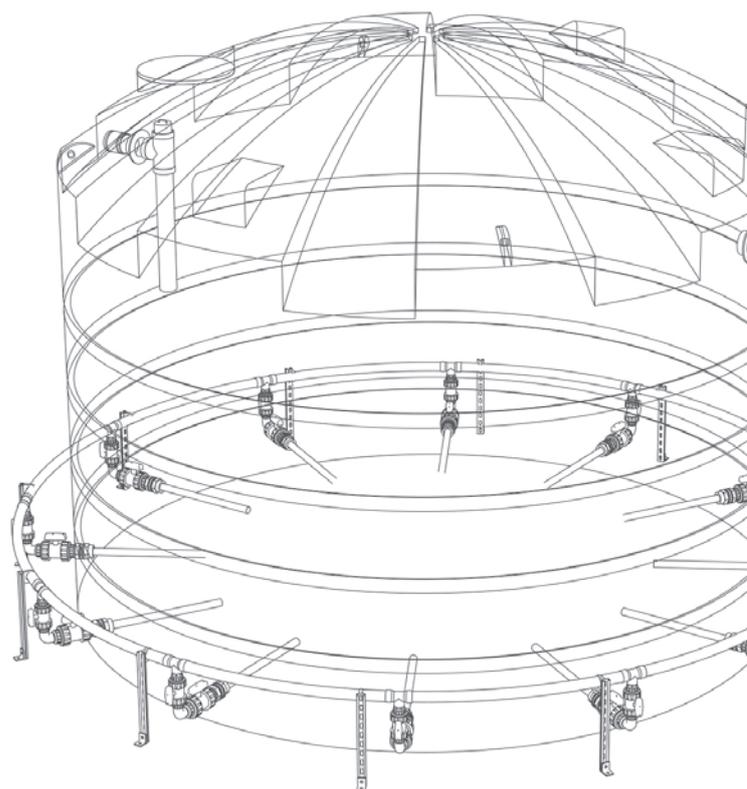
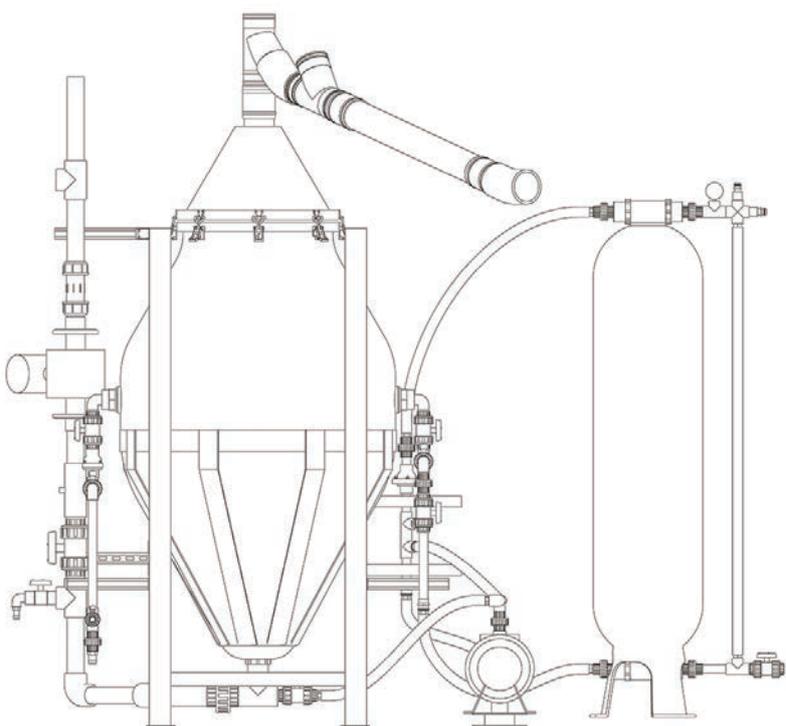
The AeroMBBR can be sealed and vented, preventing any unpleasant odours escaping.

### COMPACT

The AeroMBBR is a compact biological treatment due to the high concentration of microorganisms in the MBBR.

### COST EFFECTIVE

The AeroMBBR tank is made of polyethylene, which makes the system durable and cost-effective.





# AEROFLOAT AFTERSALES SUPPORT

## PLANT SERVICING

Aerofloat offers servicing contracts for businesses that don't have the capacity to provide regular maintenance themselves. A wastewater treatment system should be regularly maintained and serviced to minimise downtime, maximise efficiency and ensure it complies with effluent discharge standards.

Aerofloat's service technicians can diagnose and prevent potential problems, replace worn parts at a competitive rate, carry out system cleaning and use remote login to identify problems and provide advice.\* Weekly, fortnightly, monthly or ad hoc contracts are available.

## CHEMICAL SUPPLY

Aerofloat supplies wastewater chemicals at a competitive price, alongside expert advice from our team of engineers. Having the correct chemistry in your wastewater treatment system is imperative to the quality of effluent achieved. Not to mention a huge difference to the bottom line if the chemical dosage is not optimised.

The experienced engineers at Aerofloat hand-pick the best chemicals for use in your wastewater system to ensure optimal running results, while minimising long-term costs with competitive chemical rates.

*\*Remote monitoring hardware is required for remote login capabilities.*





## CASE STUDY

# 4 PINES BREWERY

With an expansion planned for its Brookvale site, 4 Pines Brewery engaged Aerofloat to install a wastewater treatment system. The available space provided a challenge for wastewater treatment: there was only a small 15m<sup>2</sup> footprint available and the area was next to the public bar where food and beer was served. The brewery needed a wastewater system to remove the solids from the wastewater and correct the pH before discharging to the sewer.

Aerofloat provided a custom wastewater solution for 4 Pines based on its patented DAF technology, allowing for a compact, odour-free solution. Aerofloat's engineers used 3D CAD modelling to custom design a solution to fit in the small space available. They also ensured any odours were captured and vented outside above the roofline.

The AeroDAF installed was essentially a set and forget system, as it automated chemical dosing, chemical make-up, level control, water consolidation and pH correction.

Any routine maintenance required was minimal, due to the unique self-cleaning shape of the DAF with hopper top and bottom tanks, that recirculated settled solids and prevented the need for routine cleaning.

Remote monitoring capabilities allowed 4 Pines technicians to log onto the system from anywhere in the world to check the operations, monitor the waste and make adjustments as required. Aerofloat engineers could also login on request to give advice to optimise the efficiency of the treatment system.

4 Pines was able to maintain its commitment to the environment by adhering to Sydney Water's strict water discharge requirements while upgrading its operations and beer output. With a compact and odourless DAF, the 4 Pines brewery continued to run its successful brewery and create a pleasant eating environment for customers.



Aerofloat were fantastic to work with. They were able to design and build a system that perfectly fits the space, removes any odour issues and meets the guidelines set out by Sydney Water.



- Lindsay Crawford, 4 Pines



## CASE STUDY

# NORCO FOODS

Australian farmer-owned dairy cooperative, NORCO, recently sought to upgrade its existing wastewater treatment system on the Gold Coast. Known for its quality milk and dairy products, NORCO needed to ensure adequate room for growth whilst complying with the ever-increasing trade waste demands of the Gold Coast City Council.

NORCO contracted ENV Solutions to propose a compact, workable solution at a competitive price. After extensive analysis, Aerofloat was the recommended company of choice, due to its innovative and cost-effective solutions.

Aerofloat was engaged to treat NORCO's wastewater for the reduction of Fats, Oils and Grease (FOG), Chemical Oxygen Demand (COD) and Suspended Solids (SS). Aerofloat's custom designed solution consisted of two AeroDAF 400s to separate the milk fat and casein, followed by two AeroMBBRs to further reduce the COD and finally an AeroDAF 200 to separate biological solids from the MBBRs.

NORCO was able to significantly reduce its FOG, COD and SS levels, while continuing to run an efficient facility and produce quality dairy products.



The regulations for wastewater are getting tighter and tighter, and as good corporate citizens we need to meet these new standards.

- *Allan Box, Norco Foods*





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