



## 4 PINES BREWERY EXPANDS ITS OPERATIONS AND MAINTAINS COMMITMENT TO ENVIRONMENT

Aerofloat's patented DAF technology provides a low-maintenance, compact and odourless wastewater treatment solution

### BACKGROUND

4 Pines was acquired by global alcohol giant, AB InBev, which allowed 4 Pines to expand its operations, whilst still maintaining its commitment to culture, environment and social responsibility, customer experience, innovation and of course, exceptional beer. The first endeavour was to upgrade its Brookvale brewery to increase its production by 40-50%. A key component of this was to ensure its systems adhered to Sydney Water's strict compliance guidelines around pH and suspended solids in wastewater.

However, 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, so the treatment system couldn't emit any unpleasant odours or encroach on the brewery operations.

### THE NEED

On the back of a global acquisition, 4 Pines needed to expand its operations for a larger distribution, while maintaining its commitment to environment and social responsibility.

### THE BENEFIT

The Aerofloat treatment system supported 4 Pines as it expanded its operations and continued to invigorate the craft beer market.

### THE SOLUTION

Aerofloat installed a compact, low-maintenance and odourless AeroDAF to treat 4 Pines's wastewater and allow for further growth and expansion.



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## THE AEROFLOAT SOLUTION

4 Pines engaged in an in-depth design consultation with Aerofloat's engineers, who used 3D CAD modelling to custom design a solution to fit in the small footprint. The AeroDAF's compact size combined with custom 3D modelling for the fit out made it the right solution for 4 Pines.

"We saw a need for compact, low maintenance and affordable treatment options. So, we re-thought the DAF design and created our patented AeroDAF technology to be mechanically simple and much more compact, ultimately making it a more affordable option" said Michael Anderson, General Manager of Engineering at Aerofloat.

The AeroDAF achieves its compact design by eliminating the need for a reaction tank, sludge pump, sludge hopper, and mechanical scrapers. "It's not just about the equipment though" said Anderson, "It was crucial to think about the layout and operator usability. With the 4 Pines treatment system in such a confined space, it was important to consider access to equipment, chemical delivery, access for sludge disposal and create an ergonomically efficient layout to ensure a safe working place without disrupting the brewery or bar."

Part of the design process was ensuring any potential odours were captured and vented outside to prevent any contamination in a food grade environment. As the AeroDAF was fully sealed, Aerofloat's engineers were able to model the fit out so the DAF was connected directly to a roof vent, venting any potential odours outside.

Automation and maintenance requirements were also a consideration with the overall brewery upgrade. The AeroDAF is essentially a set and forget system, as it automates chemical dosing, chemical make-up, level control, water consolidation and pH correction. Any routine maintenance required is minimal, due to the unique self-cleaning shape of the DAF with hopper top and bottom tanks, that recirculate settled solids and prevent the need for routine cleaning.

Remote monitoring capabilities allow 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 can also login on request and give advice to optimise the efficiency of the treatment system.

## RESULTS

4 Pines has been 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 the increased production forecasts we knew we needed to ensure a reliable and effective wastewater management system. We were limited on space and needed to ensure the impact of the system on our public bar area was limited. The Aerofloat design ticked all boxes!" Crawford commented. "The guys at Aerofloat were also great to work with."

With a compact and odourless DAF, the 4 Pines brewery can continue to run its successful brewery and create a pleasant eating environment for customers.

