Enclosed DAF system still achieving excellent results

When Sunfresh Salads needed a solution for its effluent discharge issues five years ago, it turned to wastewater treatment specialist Aerofloat. The system is still giving great results.

Adelaide-based Sunfresh Salads produces packaged food that can be found on leading supermarket shelves throughout Australia. The family-owned business takes respecting the environment seriously, especially when it comes to effluent discharge.

So when the company’s wastewater wasn’t up to council specifications some years ago, it called on wastewater specialists Aerofloat to find a solution.

Five years later, the Aerofloat wastewater treatment system continues to remove up to 97 per cent of fats, oils and grease and ensures a compliant effluent discharge.

Sunfresh specifically chose Aerofloat’s system over other products on the market, according to Sunfresh Salads’ HR and environmental service manager, Robert Mika.

“The AeroDAF 100 system was initially built as a prototype from Aerofloat’s new patented design, and we chose it for good reason,” he says. “Many other systems that we looked at were open top tanks exposed to the external environment. The Aerofloat system was completely enclosed, which meant there were no odours. Being enclosed also means we have no issues with rodents and there is no visual attraction for birds on site.”

Health and safety are integral to Sunfresh Salads’ food preparation principles, and a system that allowed it to meet council effluent regulations, and was also odourless was a win-win for the company.

Michael Anderson, general manager for engineering for Aerofloat, said it is not the first time a company has installed the system for this reason.

“We completed a similar project for 4 Pines Brewing Company where the treatment plant was located about five metres away from a restaurant sitting area and bar,” said Anderson. “In the brewery installation, we included a similar DAF to the Sunfresh Salads system and vented every pipeline above the building, so as to not affect those in the restaurant.”

The patented design of the AeroDAF 100 has stood the test of time, continuing to give great results.

Anderson advises companies that are thinking of investing in a new system to make sure they know what’s included and what they are getting for their money. “A recent client had been shopping around and finding highly variable pricing on the market,” he said. “I explained that a DAF is just one piece of the puzzle.

“A complete treatment system needs to address a number of factors. For example, water needs to be averaged out, pump flows selected, pH corrected and the correct chemicals applied.”

“A critical part of the process is having good screening equipment up front and appropriately sized tanks to accommodate flow. Remember that wastewater flow and consistency varies with production. The chemical dosing to the system is essentially set-and-forget after commissioning so it’s also important to have a decent balance tank to average out the wastewater.”

“Some companies will install basic equipment and then need to call in a number of third parties – this is where Aerofloat is different. We
have a large team that can deal with all the disciplines required to create a successful waste treatment plant that can accommodate production changes and growth.

Mika commended the ease of use and simplicity of the installation at Sunfresh Salads and explained the wastewater treatment process in detail. “All our waste was previously collected in grease traps which were no longer supporting our needs. Aerofloat converted the system to allow the waste to be pumped via a rotary screen.”

“The wastewater is then discharged into a blending tank to be mixed and corrected for pH. It then flows to a balancing tank and on to the AeroDAF 100 where it is treated with coagulant and polymer. The flocculated waste particles are floated to the top of the tank and then, automatically pushed into the waste tank.”

The AeroDAF 100 system is easy to use. As Anderson explains, it is also mechanically simple, with less working parts, which lessens the chances of a breakdown.

“With our system, you push the sludge out through a conical shape from the DAF. This means that you don’t have to maintain complex scraping chains. It also means we can manufacture the DAF more economically.”

“Depending on the project, we can offer our patented design or traditional scraper DAFs. We decide on the best fit for the client’s needs following a thorough assessment,” Anderson continued.

As food and beverage companies grow they tend to create more wastewater. So, how often does a company need to revise its wastewater plant?

“Aerofloat’s flexible designs allow companies to expand, change and grow and the company’s engineers can simply enhance or add technology to the existing system as required.

Custom designed solutions that apply patented technology in combination with other cutting-edge products, means Aerofloat is equipped to address a range of wastewater treatment needs in the industry. The long-term success of the innovative AeroDAF 100 design over time has been demonstrated repeatedly since its inception five years ago.

Sunfresh Salads look forward to ongoing growth in the future and are confident that its wastewater needs will be met with Aerofloat’s technology on hand.”