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Food
technology & manufacturing



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EVERYTHING
FOOD AND BEVERAGE

Fast information for food and beverage processors

Taking the headache out of wastewater for food industries

Managing wastewater can be time-consuming, costly and often confusing for food industries, yet with robust and reliable wastewater treatment options in place — this can actually become a simple and efficient part of your daily operations.

Having a wastewater treatment system that complements any commercial food business can save on trade waste costs while ensuring you operate a sustainable and compliant manufacturing facility.

What is considered wastewater?

Industrial wastewater is generally considered the by-products from the production of the primary product. Typically, and particularly in the food and beverage industry, a large amount of wash water is required during the cleaning processes. This wash-down water is often contaminated with production components and by-products.

The quality and quantity of wastewater from food processing plants varies significantly, however is commonly made up of fatty solids and soluble matter, such as dissolved sugars.

As a business grows, so does its wastewater

Traditional grease traps can work well for small operations. However, once the flow rate increases or the concentration of suspended solids (SS) or fats, oils and grease (FOG) becomes stronger, grease traps can't cope and end up sending contaminants to sewer. This means many food manufacturers will either have to pay trade waste costs to their local water authority, or install a wastewater treatment system to avoid these costs.

Wastewater treatment systems such as a DAF or MBBR are much more efficient than a grease trap and can remove SS, FOG and BOD much more easily. Investing in an efficient and product-specific wastewater treatment system prevents major operational downtime and reduces or removes trade waste cost.

Wastewater management company Aerofloat has extensive experience and knowledge across an enormous range of applications including dairies, breweries, poultry, meat,

confectionary and packaged food plants, as well as smaller food business operations. Aerofloat can scale a solution to meet different needs and budgets.

Michael Anderson, General Manager – Engineering of Aerofloat, says that wastewater systems don't need to be a headache for business.

"When thinking about wastewater treatment, it's worthwhile investing in a system design that complements your business and has room for growth long-term. In most cases, a basic off-the-shelf product creates risk, increases costs down the track and can create operational downtime. Get in the experts and install a system that can grow with your business.

"Aerofloat's engineers specialise in designing systems for challenging sites and utilise 3D CAD modelling to address any issues prior to signoff. So our customers know exactly what they're getting before manufacturing commences."

Aerofloat's offering

Aerofloat has been working in the wastewater industry since 1973 and prides itself on being able to tackle complex wastewater problems. Aerofloat's engineers provide custom solutions to suit different needs.

Aerofloat also has a suite of proprietary technology at its disposal. Its patented AeroDAF and patent-pending AeroMBBR are designed to be low-maintenance, compact, and affordable for food manufacturers.

For food industries producing significant fatty waste, the AeroDAF removes fats and suspended proteins by floating and separating solid particles.

"The patented AeroDAF is a simple solution for food industry wastewater and is a set and forget system. It automates chemical dosing and make-up, level control, water consolidation and pH correction. Maintenance and cleaning is minimal due to the unique self-cleaning shape of the DAF with hopper top and bottom tanks, that recirculate settled solids," says Anderson.



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The AeroMBBR uses a biological treatment technique to treat dissolved compounds, such as sugars and lactose. Aerofloat has developed patent-pending aeration lances in its AeroMBBR that can easily be removed and maintained while the process is still operating, without draining the tank or removing the biomedium. This significantly reduces any downtime and maintenance requirements.

Thus, ensuring wastewater is compliant and can be discharged safely to sewer or reused within the factory. Any remaining solid waste can often be re-purposed as a form of beneficial reuse such as compost material — or further treated with dewatering technology.

Wastewater made easy

"We can provide expert advice onsite or by remotely logging in to the systems. We also provide ongoing service and maintenance contracts to ensure plant operators get the benefit of our knowledge and experience," says Anderson.

Effective management of the wastewater treatment plant reduces environmental impact, optimises operational costs and prolongs the longevity of the plant.

With Aerofloat caring for businesses' wastewater systems from start to finish, this allows companies to focus on their core business.


WASTEWATER TREATMENT SPECIALISTS

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