

Wastewater Treatment: Mixed Solids Removal

Dairy/Food Processor removes TSS, FOG and associated BOD with Dissolved Air Flotation (DAF).
Stuart Ward of *Process Engineered Water Equipment* explains system design...

Case Study

Pacific Natural Foods (PNF) manufactures a variety of organic food products. Chuck Eggert, company founder, took things further when he purchased 2,000 Willamette Valley acres to showcase sustainable farming practices. And these farms produce much of Pacific Food's ingredients. This commitment to quality has led to strong growth and increased process water.



Wetland area WWT

Matching environmental stewardship with modern wastewater management was challenging. PNF needed a low impact solution as the new wwt facility was adjacent to sensitive natural wetlands. The area features the Tualatin River National Wildlife refuge and entire basin is critically monitored for environmental impacts. The immediate vicinity offers year-round nesting habitat and is part of the Pacific flyway for migratory birds. PNF contacted PEWE about DAF systems and was open to the innovations offered.



PolyAccu Dose LD-20D

Custom Fit System

PEWE designed a system to grow with PNF yet remain efficiently compact. The carefully selected DAF is a **HD²XL Rator™ LS-375** by PEWE. This unit utilizes counter



DAF & Custom Mezzanine

-cross flow hydraulics with regenerative turbine aeration for maximum solids removal. The DAF can remove 99% TSS and FOG with their associated BOD from the wastewater while sipping the minimum of chemistry. A **PolyAccu Dose™** chemical station coupled to the optional **TSS Optimization** package provides consistent flexible dosing to the DAF system. The system pumps the collected solids to holding tanks for reuse as digester feed stock and fertilizer while the clean water is discharged to the POTW. PNF has gone the extra step of manning the WWT 24/7/365 to ensure the area is protected and treatment results as expected.

Final Results

The complete system package features a custom built mezzanine added at the final moment that "fit like a glove" upon arrival. The PEWE Technical Services installation start-up support (ISS) had the system up and running quickly. PNF integrated the PEWE **Command Control** with their in-house SCADA system for complete monitoring and control throughout the complex. The newly hired wwt operators were trained on the proper use of the equipment after being given a thorough background on treatment methods, regulations and best practices for achieving results.

Pay Off

Pacific Natural Food's new DAF wastewater treatment system provides a steady stream of clean water that is substantially saving on the local POTW fees and surcharges. PNF plans for more positive **Green** growth in their successful years ahead. The community and environment do appreciate the contribution.





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