

## Wastewater Treatment: Site Challenge

Dissolved Air Flotation (DAF) installation critical to dairy plant operation.  
Stuart Ward of *Process Engineered Water Equipment* explains system design...

### Case Study

The Dannon Company manufactures a variety of frozen yogurt products at its Portland Oregon "YoCream" facility. Issam Khoury, then the YoCream International manager purchased the PEWE dissolved air flotation (DAF) unit as part of an overall discharge improvement package. According to city officials it was the last plant to install a primary wastewater treatment system. While city officials expressed a keen interest in having the system up and running, actually working with the local government proved otherwise.



New Wastewater Facility

A wwt location was found only on the south end. Within the confines of underground utilities, set-backs and access a wedge of space nestled the DAF building and tank farm adjacent to the exiting structure. The complete system stretched from one end of the complex to the other including several lift stations, specialized seismic containment for the tanks, integrated building structures and site access. Lift stations pumped water across the roof of the complex to the EQ tank while the gravity discharge line kissed the corner of the property on its way to the city sewer.



PolyAccu Dose PDC-20D

### Tight Fit System

Thoughtful component placement maximized interior space with the efficiently compact **HD<sup>2</sup>XLRator™ LS-175** DAF. This unit utilizes counter-cross flow hydraulics with regenerative turbine aeration. The DAF can remove 99% TSS and FOG with their associated BOD from the water with minimal chemistry.



DAF Installation

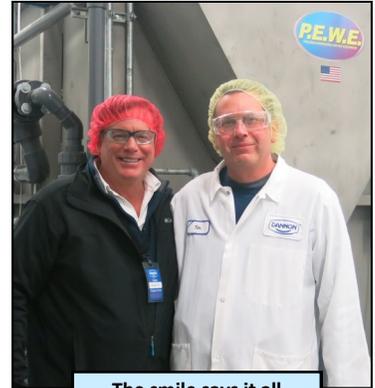
A **PolyAccu Dose™ PDC-20D** chemical station coupled with the optional **TSS Optimization** package provides very consistent and flexible dosing to the DAF system whenever irregular and un-predicted TSS spikes occur.



High dry solids recovery

### Final Results

Technical Services provided install start-up support (ISS) on-site until the system was up, running and employees trained. Also programmed were several custom features to better match the PEWE **Command Control** with Dannon's in-house SCADA system. This provided for complete monitoring and control. The new wastewater operators easily managed the equipment and were able to achieve the desired results.



The smile says it all

### Pay Off

The collected solids are reused as municipal digester feed stock for energy production while the clean water is discharged to the POTW. And Dannon's new DAF wastewater discharge provides reliably sustainable **Green** surcharges savings 24/7/365.



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