Dissolved Air Flotation (DAF) treatment system for poultry further processing plant

Xylem supplied equipment for a wastewater treatment system at a poultry further processing plant. The system featured two separate DAF process trains, one for primary pretreatment of plant wastewater prior to aerobic biological treatment and one for secondary clarification of biologically-treated wastewater.

DAF influent flows through Xylem's flocculation tubes into the DAFs. DAF skimmings flow into Xylem-provided skimmings decant tanks and are pumped to a holding tank using Xylem-provided pumps. Chemistry and controls were provided by the client.

The DAFs feature a single integral catwalk to provide easy access to both DAF systems. The Xylem-provided equipment was installed by the client, with Xylem providing startup, training, and troubleshooting services. The pretreatment system is fully operational and meeting the treatment requirements for the plant.



DAFs and catwalk ready for shipping

Flocculation
Two Xylem model FT-64 flocculation tubes

Dissolved Air Flotation
Two Xylem Model RT-100 DAF systems, 304 stainless steel construction, 300 gpm capacity, Hellbender® HB-90 recycle pumps, top & bottom skimmers, integral galvanized catwalk

Float (sludge) handling
Two, 4,500 gallon HDPE tanks, rotary lobe pumps



System performance

Parameter	Influent mg/L	Effluent mg/L	Removal percentage
Pretreatment DAF COD	26,273	1,496	94.3
Clarification DAF COD	1,544	117	92.4
Clarification DAF TSS	1,395	83	94.0



FT-64 flocculation tube ready for shipping

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