

Single new DAF processes the same amount of wastewater as two older DAFs under repair



The challenge

An oil refinery in the US Midwest scheduled repairs to an existing wastewater treatment system. Refinery operations needed a temporary treatment system on site to maintain uptime during the outage.

The existing wastewater treatment train included two Dissolved Air Flotation (DAF) units which had originally been supplied by Xylem over 40 years ago, and were still in service, but in need of repair. There was extensive corrosion in the tanks.

The challenge was for Xylem to supply a temporary system which would handle the required flow rate and meet the treatment goal while the two original DAF units were repaired during the planned 2-month outage.

Customer

Oil Refinery, Midwest USA

Challenge

Maintaining uptime during a maintenance event

Solution

Single DAF with updated design with a chemical-conditioning mix tank

Results

Single DAF processed wastewater equal to two older DAFs

The solution

Xylem supplied a single DAF unit along with one chemical-conditioning mix tank. The temporary DAF unit was a newer model with an updated design. Combined with the mix tank the single DAF was able to process the required amount of effluent typically handled by both legacy DAF systems each of the same size as the rental unit. Xylem was also able to supply the conveyance which included HDPE piping which is impervious to the refinery wastewater.

The results

Within the scheduled outage the single temporary DAF and chemical conditioning tank system was able to maintain the facility's uptime by processing the entire flowrate typically handled by both older DAF units concurrently. Effluent quality was well-within requirements.

The customer's procurement process was also streamlined by utilizing a single vendor to handle the temporary wastewater treatment design and implementation, and all water conveyance.

Keys To Success

Utilizing its Master Services Agreement (MSA) with this customer Xylem enabled their procurement process to be more streamlined. Also having a single vendor for the temporary wastewater treatment system and effluent conveyance saved the customer additional costs related to their procurement and management of the project.