



How a Petrochemical Site Improved Dewatering Performance Using Existing Equipment



Background & Challenge

A petrochemical facility relies on efficient **wastewater treatment** as a key component of its operations

The site needed to **improve sludge dewatering** on its existing line, as cake dryness remained limited and **polymer consumption** was high, impacting both costs and **sludge handling** efficiency.

The challenge was to increase **performance** on a drainage table and belt filter press combination already in place, **without investing** in new equipment or disrupting plant operations.

Orege's Solution & Service

Orege deployed its **SLG conditioning solution** upstream of the existing dewatering equipment to improve sludge preparation and overall process performance.

The objective was to enhance cake dryness while optimizing chemical use within the current infrastructure.

Beyond equipment, Orege implemented a comprehensive **process optimization approach**, including polymer selection, dosing strategy, operating conditions, and equipment settings.

Performance gains came from optimizing the **full dewatering process**.





Results and Benefits

Orege's solution delivered measurable improvements in dewatering performance using existing equipment.

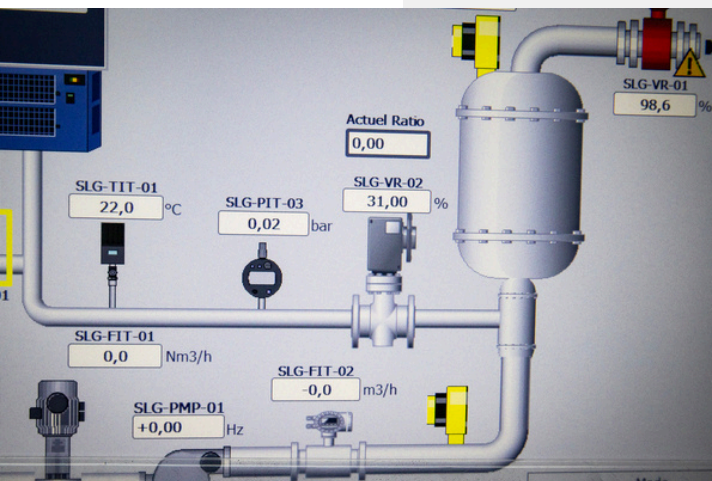
Average cake dryness increased from approximately 12.2% to 14.5%, with peak results reaching 15.1%, representing a **significant gain in solids recovery**.

At the same time, **polymer consumption was reduced by around 15%**, demonstrating that higher performance could be achieved while lowering chemical usage.

This combination of improved dryness and reduced reagent demand directly contributed to lower operating costs and more efficient sludge handling.

Overall, the project showed that meaningful performance gains can be achieved **without replacing existing infrastructure**.

By optimizing sludge conditioning and process parameters, the plant operators improved dewatering efficiency within its current footprint and without operational disruption.



Orege enabled the plant to improve dewatering and reduce chemical use with existing equipment, without CAPEX.