



How to Improve Dewatering and Thickening Performance While a Facility Is Under Construction?



Background & Challenge

The City of Columbus launched a **major upgrade** to its sludge treatment facility, requiring a **shutdown** of its dewatering and thickening systems.

However, sludge continued to accumulate daily demanding a reliable **temporary dewatering and thickening solution** to maintain **compliance** and avoid costly interruptions.

With tight construction timelines, Columbus Water Works needed a flexible **rental equipment partner** that could ensure continuous sludge processing with minimal disruption.

Orege's Flexible Rental Solution

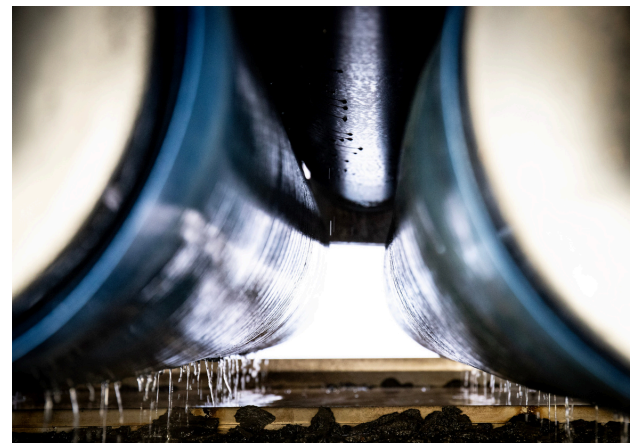
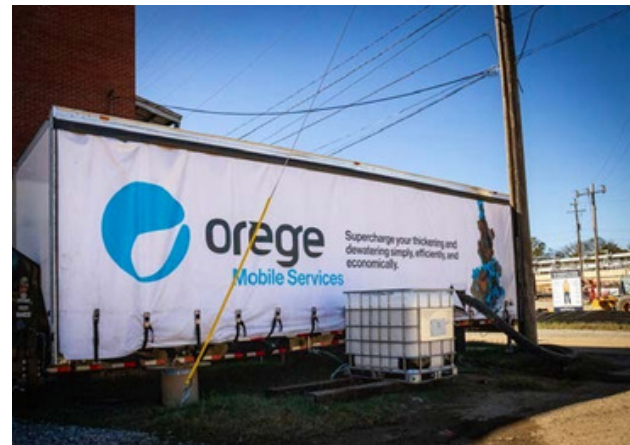
Orege, in a **pro-active approach**, provided a complete mobile rental dewatering and thickening system, including:

- **2 Belt Filter Presses** for sludge dewatering
- **2 Rotary Drum Thickeners** to reduce sludge volume before digestion

Both systems were equipped with Orege's patented SLG®(Solid-Liquid Gas) technology.

What made Orege stand out?

- **Fast & straightforward implementation:** equipment arrived preconfigured for rapid deployment, minimizing on-site integration work.
- **Technical expertise:** Orege assessed site conditions and adapted the proposal to avoid simply taking over the existing equipment.
- **Responsiveness:** close collaboration with the client ensured smooth delivery, setup, and optimization of sludge flows and polymer dosing.





Sludge cake with 23% dry solids



Results and Benefits

According to Julio Baez, the rental system delivered exceptional operational benefits:

1. Significant Improvement in Dewatering Efficiency:

The installation of the two Orege belt presses resulted in a substantial increase in dry cake solids from our historic 18% to 23%.

The immediate **performance gains** reduced **hauling costs** by producing a **drier cake**, meaning less water to move and fewer daily truckloads.

2. Enhanced Thickening Performance Combined with Major Polymer Cost Savings:

The Orege thickener system ("SLG-F") increased the City's sludge solids concentration from the previous 6%–7% range to 8%–9%, occasionally achieving even higher levels. Furthermore, the facility found a tangible reduction in polymer use, resulting in **six-figure cost savings**.

3. Strong Partnership for Process Optimization:

Orege staff worked "hand in hand" with the facility, providing **troubleshooting, assistance** with chemical feed, and help with changes to improve efficiency. Orege and Columbus Water Works collaboration shows that increased **expertise** leads to **better results** and **greater savings**.



"We turned to Orege to keep our operations running. They did much more than that. Their solution cut costs, improved efficiency, and came with outstanding expertise and support."

Julio BAEZ, Biosolids Labor Foreman, Columbus Water Works