

How to Improve Dewatering Performance When Space Is a Constraint



Background & Challenge

Wastewater operators need to improve **dewatering performance** while managing **footprint, water consumption, and plant constraints**. For plants capped by hydraulic permits, wash water can become a critical limitation.

Alfa Laval and Orège combined their complementary **expertise** to address these challenges across a range of plant sizes, sludge types, and applications, municipal and industrial.

The result: one integrated system combining sludge conditioning, thickening, and high-pressure dewatering.

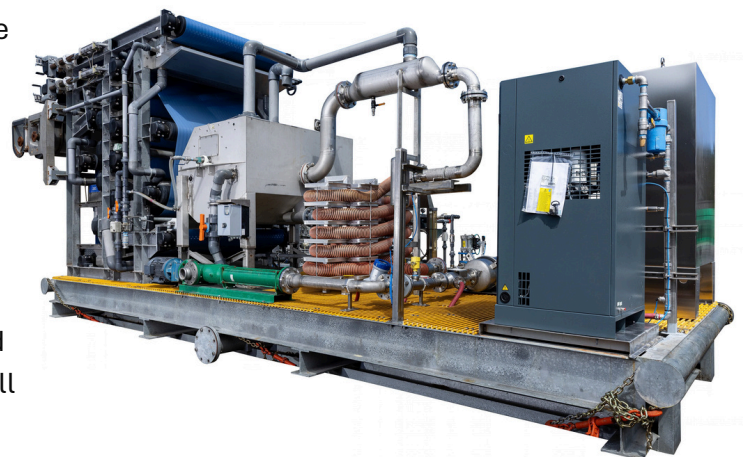
DTZ: Two technologies. One integrated solution.

The DTZ hybrid sludge dewatering unit combines three stages on a single skid:

- Orège SLG® conditioning, built into the skid
- Flosep® thickening, the drum that replaces the gravity belt zone
- Alfa Laval vertical belt filter press section

SLG® conditioning builds a stronger, more flocculated sludge. That structure is what lets the press use its full pressure. Neither technology delivers this alone.

Since 2024, it has run through eight different plant configurations: municipal and industrial, varying in size, sludge type, and constraints.





DTZ: the Next Generation Dewatering Service



Results and Benefits

1. Performance improved everywhere.

Dewatering improved by **up to 20%**. On the most responsive sludges, **3 to 5 additional points of dry solids**.

A drier cake means **less water to haul**. Every point of dry solids takes weight off the cake. For example, moving from 18% to 22% dry solids cuts the tonnage leaving the plant by almost a fifth. That means fewer trucks, lower hauling and disposal costs, and **savings** that add up every day the plant runs

2. Less space. Less water. Less maintenance.

A compact drum thickener takes the place of the long gravity belt found on a conventional press, so the unit fits where a conventional line would not. It needs no continuous wash water, a real advantage for plants limited in the water they can send back. It also means less maintenance. The drum turns on a single bearing and uses a stainless steel screen, so there is no belt to clog or replace. The Alfa Laval vertical press then does the final dewatering at high pressure.

3. The expertise does not leave after startup.

Orège commissions the machine and sets it for your sludge, so it performs from day one.

If the sludge shifts with the season, Orège comes back and tunes it again. For operators, nothing changes: start, stop, adjust polymer.



DTZ combines Alfa Laval dewatering expertise with Orège conditioning and thickening technology for higher performance in a smaller footprint.