ENGINEERING PROJECT

Digestate ultrafiltration for ammonia recovery

Anaerobic digestion

Design feed flow	Feed suspended solids	Membrane area
30 m³/h	25 g/L TSS	1,145.6 m²

01

The challenge

At design flow, the digestate carries 750 kg/h of suspended solids. The ammonia recovery stage needs a clarified feed.

02

The solution

After screening, crossflow membranes retain solids. Permeate feeds the ammonia stripper, while concentrate leaves through a separate bleed line.

01	02	03
Screening	Crossflow UF	Ammonia stripping

03 / PROCESS DESIGN

4 ultrafiltration trains

The design distributes 32 PVDF modules across four trains. Each train has space for one more module to expand the filtration area.

- Outside-in filtration
- Permeate backwash
- Clean-in-place circuit

32 PVDF modules



4 trains × 8 modules