



BIOSOLIDS



BIOWASTE



BIOREFINERIES

PLANT
SHEETS



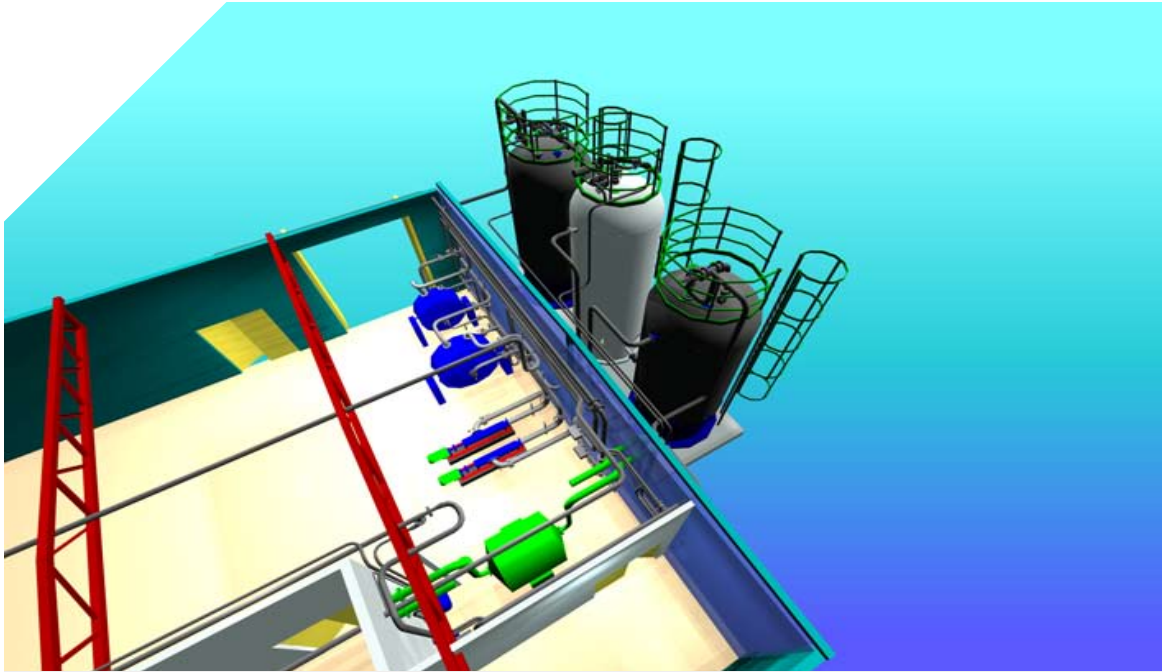
BORREGAARD

Sarpsborg, Norway

Plant capacity and performance:

- 4000 metric tonnes DS/year
- 1 x 4000 m³ digesters
- Continuous Cambi THP
- Eliminating chemical hydrolysis
- Increased biogas production
- Reduced return load to WWTP

CAMBI™
- recycling energy



Borregaard, Sarpsborg

Borregaard Industries is a fine wood pulp factory in Sarpsborg, Norway.

The Cambi THP is designed to treat 4,000 tonnes of dry solids (DS) annually of industrial waste activated sludge.

Originally the digestion plant would only operate if the waste activated sludge was treated by alkaline hydrolysis using sodium hydroxide.

This process has been replaced by Cambi Thermal Hydrolysis, which has paid for itself by the savings in process chemicals.

In addition the amount of produced biogas has increased and the return load to the WWTP has been substantially reduced.

The Cambi system here is operated in continuous mode on relatively dilute sludge (3-6%) as there is a surplus of steam at the plant.

The benefits of the Cambi process are:

- Elimination of chemical used for alkaline hydrolysis
- Operates using existing free steam from paper factory