

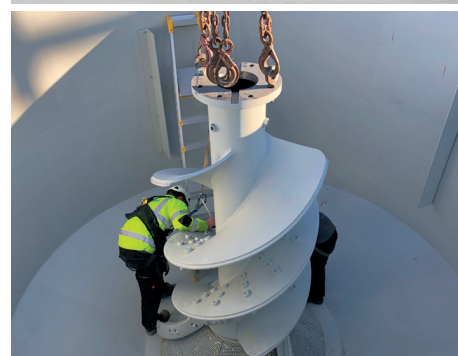


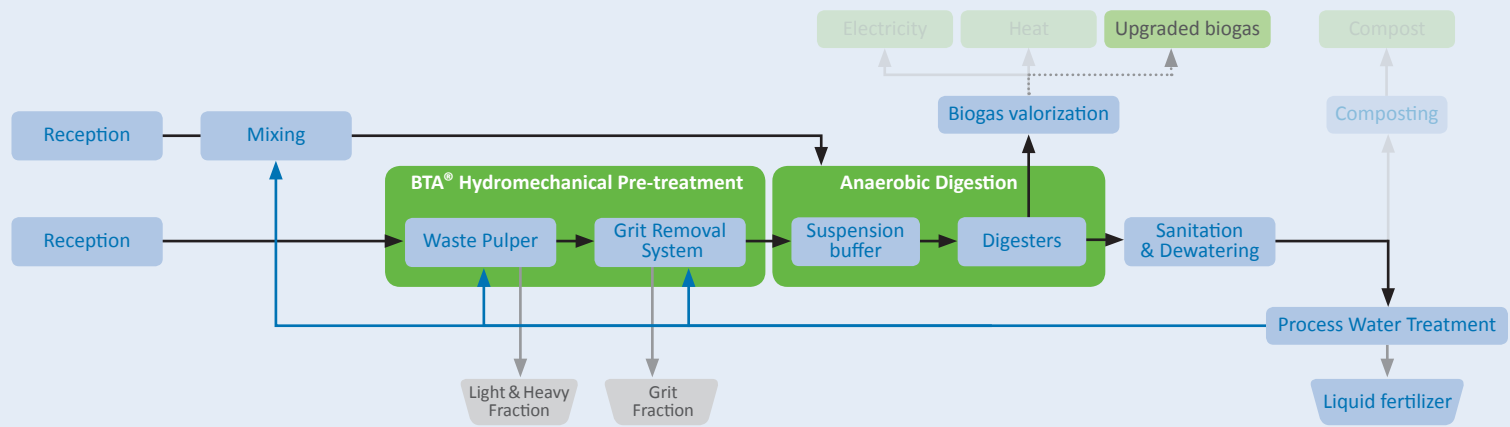
Biogas Plant Lohja - Finland



Selected BTA References

- Final Client:**
- Gasum Oy
- Type of Waste:**
- Source Segregated Organics
 - Commercial Waste
 - Food Waste
 - Forest Industry and Grease Sludge
- Capacity:**
- 60.000 tons/year
- Start-up:**
- 2021
- Plant Sections:**
- Separate reception lines for industrial and grease sludge
 - Reception line for food waste
 - Reception line for Source Segregated Organics
 - BTA® Hydromechanical Pre-treatment
 - Wet anaerobic digestion
 - Sanitation with heat recovery
 - Dewatering
 - Internal process water management
 - Gas treatment & storage





Biogas Plant Lohja - Finland

Description

Only twelve months after assigning the turnkey extension of the Biogas Plant Topinoja to BTA International, GASUM has expressed its confidence in the BTA® Process with a new order for the design and erection of the **Biogas Plant Lohja**.

This facility will annually process approx. **40.000 tons of source segregated organics, commercial waste and food residues** from ferries & ships and **20.000 tons of sludge** from diverse sources.

Four separate reception lines will ensure the **high substrate flexibility** of the facility: Grease Sludge will be received and pumped directly into the suspension buffer, while industrial sludge will previously be diluted to pump it into the digesters. Additional two reception lines (a deep bunker and a liquid waste reception tank) allow a separate delivery of those waste streams with impurities. These are sent to the **BTA® Hydromechanical Pre-treatment** first before the cleaned organic suspension is also pumped further.

The Anaerobic Digestion step consists of two **fully mixed digesters** of 4.000 m³. The digestate undergoes a **Sanitation** procedure (70°C, 1 hour), including an **Heat Recovery** step. A **partial stream dewatering** allows to recover the process water needed for the previous processes. The remaining is stored as liquid fertilizer in a **Digestate Storage Tank**, on top of which the **Double Membrane Gas Holder** is installed. Before the biogas is handed over to GASUM for its further valorization (upgrading), the biogas is treated in a **Biological Desulfurization** unit.

It is expected to produce around **50.000 tons of organic fertiliser** and more than **40 GWh of Biogas** per year. GASUM expects that with its portfolio expansion by the Lohja project will further boost the Finnish biogas market and promote the use of biogas as a transport fuel.