



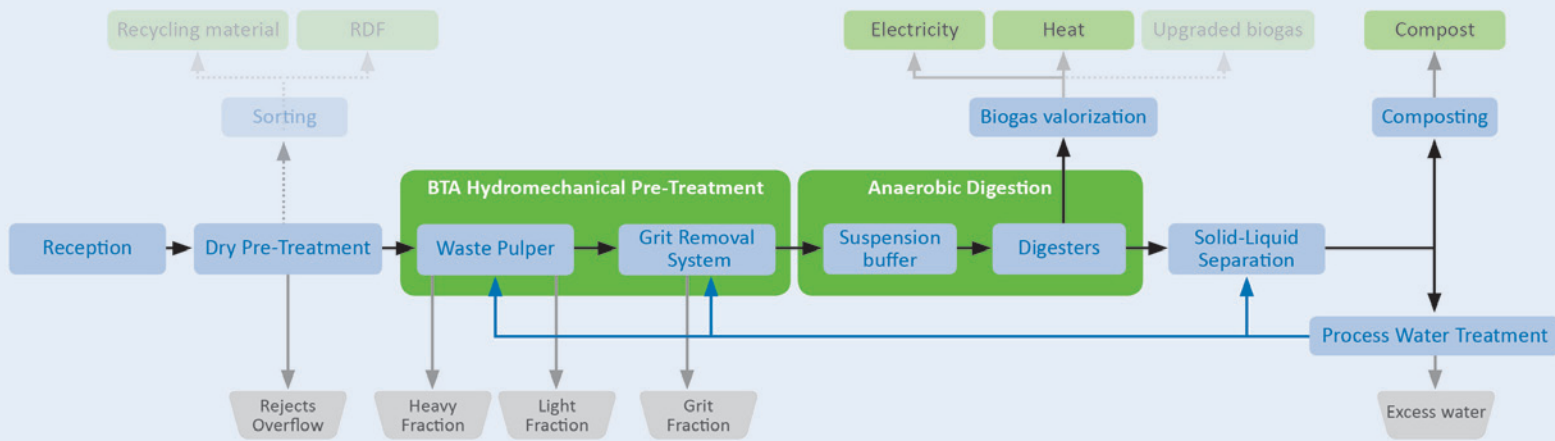
KIRCHSTOCKACH - Germany



Selected BTA References

- Final Client:**
- M. Ganser GmbH & Co. Entsorgungsbetriebe KG
- Type of Waste:**
- Biowaste (with a very high content of green and garden waste)
- Capacity:**
- 20.000 tons/year (initial design)
 - Over 30.000 tons/year (actual)
- Start-up:**
- 1997
- Plant sections:**
- Waste reception
 - Mechanical pre-treatment (screw mill)
 - BTA® Hydromechanical Pre-treatment
 - Two-stage wet anaerobic digestion
 - Biogas valorization in CHP units
 - Composting of dewatered hydrolysis residue with green waste
 - Internal process water management
 - Effluent treatment plant





KIRCHSTOCKACH - Germany

Description

The biowaste methanization plant in Kirchstockach is operating successfully since **15 years**.

As the plant was operating at about 150% of its original design capacity, the anaerobic digestion step – the bottleneck of the installation - was **extended in 2010/2011** by a third hydrolysis tank.

The plant is based on **two-stage wet anaerobic digestion** process. The organic suspension, previously cleaned in the **BTA® Hydromechanical Pre-treatment**, is separated into a solid and a liquid phase. The liquid phase with a high amount of already dissolved organic material is pumped directly into the fixed film methane reactor. The dewatered solids are mixed with recirculated process water and fed into the hydrolysis tanks to dissolve the remaining organic solids. After 2-4 days, the suspension is dewatered and the liquid is also fed into the methane reactor. The produced biogas is converted into heat and power in **two CHP** units (with ca. 330 kW_{el} each). It is planned to install a third unit to increase the installed electrical capacity to 1 MW.

While the liquid phase is widely recycled in the process and the remaining amounts are treated in an internal effluent treatment plant, the resulting solid hydrolysis residue, contaminant free and low in salts, is further stabilized in the plant's **existing composting** facility together with green waste.