



TTV CHONGQING

CN

TTV THÖNI HIGH SOLIDS ANAEROBIC DIGESTION

Customer

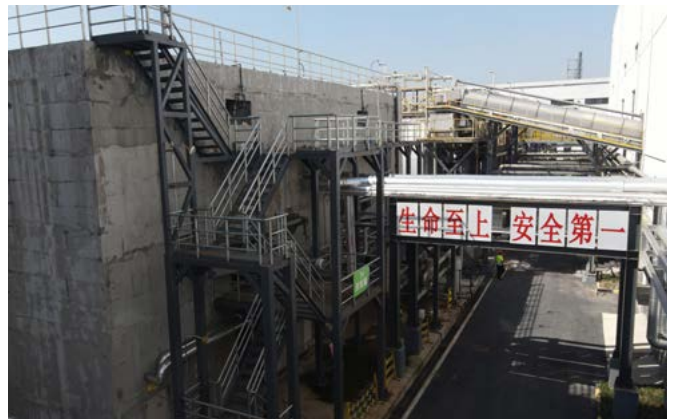
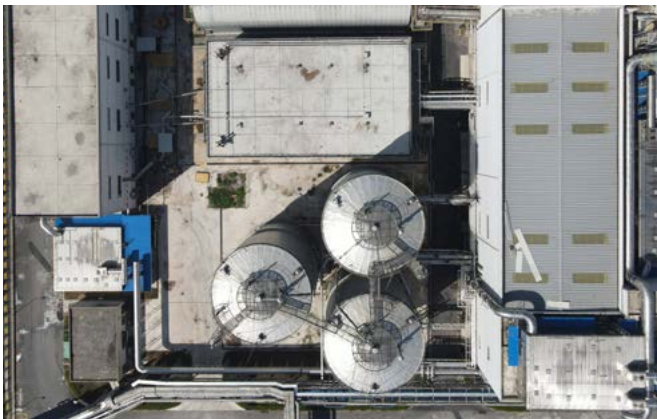
Operator:
Chongqing Environment & Sanitation Group

Plant data

Commissioning:
2023

Input:
Kitchen waste

Digester:
2 x TTV2250 (Concrete)



PLANT AND PROCESS

At the Luoqi site, National Resource Recycling Center Yubei, in Chongqing, China the Chongqing Environment & Sanitation Group implemented, in addition to other waste treatment systems, a new anaerobic digestion facility for the treatment of biowaste and kitchen waste.

Every day, 2,100 tonnes of food waste, 800 tonnes of municipal sludge and 1,000 tonnes of fruit and vegetable residues from 9 districts of the city centre are delivered to the plant. That makes in total, more than one million t/a of waste being processed at this site each year.

As part of this project, Thöni was commissioned to supply a high solids AD plant consisting of 2 x TTV2250 digesters where the anaerobic digestion takes place. In this process, the digested material is passed through the TTV plug flow-digesters by means of a “plug” – supported by a slowly rotating agitator at a temperature of 55°C (thermophilic).

The special design of the agitator reliably prevents the formation of sinking and floating layers and promotes a high and uniform gas yield. Digester temperature, filling level in the digester, gas production and gas pressure are each continuously monitored.

The biogas that is generated is purified and processed into electrical and thermal energy in combined heat and power plants (CHPs). Part of the energy is used to operate the plant technology, while the surplus energy is fed into the local Chongqing power grid. The extracted thermal energy is used to supply the digesters and further facilities on site with process heat.

The new anaerobic digestion facility has been successfully in operation since 2023.