

## Biogas Plant WUHU



Location:	Wuhu, Anhui province, China
Construction Period:	2016
Input:	Kitchen waste
Fermenter:	Carbon steel, welded, 2 x 3,400 m <sup>3</sup>
Gas utilization:	Gas upgrading system, fed into the local grid
Special Features:	Two-stage system (Hydrolysis & Digestion), two pre-treatment tanks and oil separation system, two one hydrolysis tanks, two digesters, one storage tank, external gas storage, digestate treatment, hydro-cyclone, external heating, decanter, heat recovery from oil separation, substrate cooling unit, effluent treatment system

The WUHU biogas plant is located in Anhui province about 300 km West of Shanghai. The customer is Beijing Fairyland Environmental Technology Co. Ltd. Supervision. Krieg & Fischer Ingenieure GmbH was responsible for the planning, the tendering, the construction supervision and the start-up of the biogas plant.

The digestion plant is designed to process kitchen waste (165 t/day). The kitchen waste is pretreated with hammer mills and stored in the pre-treatment tanks.

Oil is separated at 60° C. The heat is recovered and used for the pre-heating of the substrate. After the hydrolysis step the acidified substrate is fermented in two digesters.

The produced biogas (440 m<sup>3</sup>/hour) is stored in an external gas storage tank and is upgraded to bio-methane and this is marketed as a biofuel.

A decanter is used for solid/ liquid separation of the digestate. The separated digestate liquor is treated in a waste water treatment plant, while the digestate fiber is market as fertilizer.

Startup of the biogas plant will be in 2016

Responsibility of Krieg & Fischer Ingenieure GmbH:

Conception, draft and execution planning, tendering and participation in the awarding process, supervision of construction, start-up, training courses