

# - Proposal for Wastewater Treatment Plant -

## Activated Sludge process

Capacity:  
500.000 person equivalent  
7.813 – 12.500 m<sup>3</sup>/h

Effluent parameters at water temperatures of 12°C

COD	≤	75 mg/l
BOD <sub>5</sub>	≤	15 mg/l
NH <sub>4</sub> -N	≤	10 mg/l
P <sub>tot</sub>	≤	1 mg/l

European gross cost estimate  
19,800,000 EUR

Optional sewage sludge combustion plant  
6,800,000 EUR

Operating costs

Electricity: 55.000 kWh/d

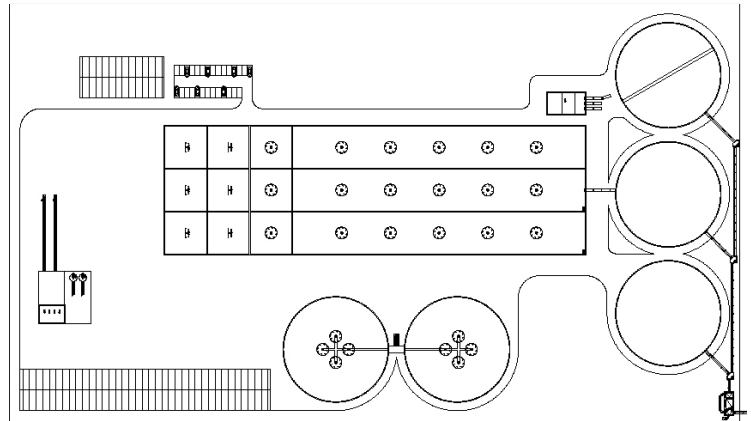
Amount of surplus sludge: 137 t/d

Power generation by sludge combustion

24.000 kWh/d

Space requirement:

250 m x 350 m



Design

The sewage treatment plant consists of three parallel cascade basins (length 200 m x width 20 m x height 7 m) with aeration turbines, mixers and surplus sludge pumps and three sedimentation tanks (diameter Ø 52 m).

The surplus sludge is stored in two sludge silos and will be dewatered by a wire press. Optional there is a sludge combustion plant. The pre-treatment includes a pumpstation with four pumps, two series of mechanical fine screens with screening presses and two aerated grit chambers.

The operating building is designed as massive construction containing all controlling equipment.



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