



Tesca Aerobic Water Treatment Pilot Plant 32485 is an activated sludge pilot plant consists of an oxidation reactor and of a settler according to the traditional diagram of single-stage sewage treatment process.

Biomass is oxidized in a reactor with agitator by the air blown by a compressor. The processed liquid is then sent to the settler.

The sludges settling on settler bottom are recycled by a recirculation pump into the oxidation tank.

The water flowing out of the settler is conveyed to a drain.

Data acquisition is carried out by a specific software.

## **Specifications**

- AISI 304 stainless steel framework with castors
- Feed tank, 300 L capacity
- Cylindrical oxidation reactor of transparent methacrylate, 60 L capacity, including an AISI 304 stainless steel agitator with motor and air diffuser
- Settler of transparent methacrylate, 30 L capacity
- · Peristaltic feed pump
- Sludge recirculation peristaltic pump
- Diaphragm compressor with body of stainless steel
- Microprocessor-controlled board-type pH-meter, with range of 2 to 12 pH, 4 to 20 mA output signal
- Microprocessor-controlled board-type rH-meter, with range of -1500 and +1500 mV, 4 to 20 mA output signal
- Microprocessor-controlled board-type dissolved oxygen meter, with range of 0 and 20 ppm, 4 to 20 mA output signal
- · Electronic flow-meter for measuring air flow rate to reactor
- Data acquisition software for Windows

## **Experiments**

The process unit enables to develop and analyze the following issues:

- Purification efficiency versus the following parameters:
  - Composition of water to be treated
  - Residence time
  - Organic load
  - pH in oxidation tank
  - · Concentration of dissolved oxygen

## **Mains Power**

• 220 – 240V 1Ph, 50Hz

Note: Specifications are subject to change.

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