

"ONE TANK REACTOR"-PLANT TETTAU (Germany)



- **Start-up date:** August 1993
- **Connection Load:** Designed for 2,000 population equivalents (p.e.)
BOD₅-load: 120 kg/d
Daily sewage: 500 m³/d
- **Plant concept:** Extended aeration (sequenced batch technology) simultaneous sludge stabilization, nitrification, denitrification,
Organic sludge age > 20 days
- **Sewer concept:** Combined system (rainwater and sewage)
- **Effluent results:** BSB₅ = < 8.0 mg/l
CSB = < 20.0 mg/l
NH₄-N = < 2.0 mg/l
P_{total}: = < 3.0 mg/l
- **Technical features**
Two parallel operating SBR-systems (computer controlled) including a sludge storage tank for the excess waste sludge (storage capacity for 180 days).

Pretreatment of the incoming sewage by a compact station including fine screen and sand trap. Free flow discharge of the pretreated sewage into the two reactors.

Alternating fill-up of the two reactors (automatically operated).

Aeration and oxygen-supply by use of a floating surface aerator (type BSK 2000). Speed control according to the oxygen requirement by frequency controllers.

Discharge of the purified wastewater by use of two decanting pumps in each reactor. The pressure pipes end approx. 1 km away in the river "Schwarze Elster".

Realization of the reactors and the sludge storage tank by a compact waterproof tank construction, being combined to one common structure. The two reactors are completely covered with a house, that includes the operation building.

