

"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.

