

SBR -Wastewater Treatment Plant of the Egyptian Town “Hanoville”

Connection Load: 60,000 p.e.



- **Connection load:** **60,000 p.e.**
- **Inlet quantity:** **20,000 m³/d (dry weather)**
- **Sewer system:** **combined system**
- **Treatment concept of biological stage:** **extended aeration process as 5-stage SBR, including simultaneous nitrification, denitrification and sludge stabilization**
- **Pre-treatment of sewage:** **2-stage automatic fine screens, two (2) Pista sand traps**

- **Aeration technology:** **BSK[®]- Surface Aerators, installed at stable floating systems, equipped with comfortable maintenance walkways. One (1) floating BSK[®]-Aeration System for each reactor O₂-control operation**
- **Control concept:** **fully automatic control including remote service and standby installations for save operation**
- **Sludge treatment:** **storing, thickening and dewatering (high performance centrifuge)**
- **Sludge utilization:** **disposal at landfill sites or agricultural use as organic fertilizer**
- **Process objectives:**

BOD₅:	<	25.0 mg/l
COD:	<	110.0 mg/l
N_{total}:	<	25 mg/l
NH₄-N:	<	15 mg/l
SS:	<	30 mg/l
- **Operation results:**

BOD₅:	<	3.0 mg/l
COD:	<	40.0 mg/l
N_{total}:	<	10.0 mg/l
NH₄-N:	<	1.0 mg/l
SS:	<	15 mg/l
- **Start-up:** **September 2006**



View from the turbine-platform to the pre-treatment station and BSK[®]-Decanter



2-street automatic fine screen for mechanical pre-treatment



View from the operation building to the automatic fine screens and one of the SB-reactors



Central control paddle for automatic operation including remote control from the Cairo-service station



BSK®-Surface Aerators Ø 2.5 m ready for transport



High performance Centrifuge for sludge dewatering



Key equipment of the wastewater treatment plant are floating BSK®-Surface Aerators, which guarantees perfect oxygen input capacity and proper mixing at low operation costs