

TAMBURAWA WATER TREATMENT PLANT NEW 150M³/DAY WATER TREATMENT PLANT

SUMMARY OF WORKS	
Type of Works	Water Treatment Plant
Location of Works	Nigeria
Size of Works (M ³ /D)	150 ML/D
Date of Award	19 May 2005
Date of Completion	10 August 2009
Completion Value (Including VAT)	N : 3 650 508 410.00 + Euro: 10 209 996.00
Client	Ministry of Water Resources and Rural Development Kano State – Kano State Water Board

Tamburawa Water Treatment Plant has the capacity to deliver 150ML of potable water per day to the city of Kano and surrounding areas. The raw water is sourced from the Kano River, and treated using conventional treatment processes to produce potable water that readily exceeds World Health Organisation’s minimum requirements for drinking water.

The raw water intake and pump station are situated on the south bank of the Kano River. Six 160kW submersible pumps (four duty, two standby) supply the raw water to the inlet tower of the clarifiers.

Pre-chlorine and pre-soda ash are dosed immediately after the inlet tower when required.

Aluminium sulphate is dosed via dedicated sparge bars for each of the six flat-bottom clarifiers. The excess sludge in each clarifier overflows into twelve collector hoppers, which are desludged periodically using pneumatically actuated valves that are controlled by timed solenoids.

The clarified water gravity feeds to the common filter inlet channel, from where it filters through twelve constant-flow rapid gravity sand filters. Four 90kW vertical turbine pumps (three duty, one standby) are available for backwash water, while three air blowers (two duty, one standby) facilitate air scouring of the filter media.

Post-chlorine and post-soda ash are dosed before the treated water enters the contact tanks, which is located after the common filter outlet channel. 3 x 20kg/hr injectors provide gas chlorine dosing for combined pre- and post-chlorine. After the contact tanks, the water flows into the reservoir, from where it is directly connected to the suction manifold of the clear water pump station.

Six 980kW axially split volute casing pumps (four duty, two standby) deliver the final water into the distribution network



FILTER GALLERY



FILTERS



CLARIFIERS



RAW WATER PUMP STATION



CLEAR WATER PUMP STATION