

# Archabil Infrastructure Project

A City grows!



## AMIAN TIT WATER MANAGEMENT

Project Information

Products and Services

Drinking Water

Process Water

Waste Water

ICA Technology

Operation and Finance

## Archabil Infrastructure Project

PWT Wasser- und Abwassertechnik GmbH realised an infrastructure project with drinking water and natural gas supply as well as waste water sewage for the development of the new district called Archabil in Ashgabat, the capital of Turkmenistan. The Employer is the City of Ashgabat. In line with the project a modern drinking water pump station with pump house, a disinfection plant, three drinking water reservoirs including a capacity of 10,000 m<sup>3</sup> each, administration buildings with workshop and laboratory as well as guard houses were built on an area of more than 40,000 m<sup>2</sup>.

All buildings were constructed in accordance to the architectural standards of Turkmenistan. The pump station is equipped with the



most recent pump technology and SCADA system. Now 4,000 m<sup>3</sup> of drinking water are supplied per hour for the drinking water system of Ashgabat. In total 86.4 km drinking water and waste water pipes with a diameter of DN 300 to DN 1400 and 28.5 km natural gas pipes with a diameter of DN 150 to DN 400 were laid. The pipe material is GRP and steel for the water pipes. Steel pipes coated by PE was used for natural gas pipes. A cathodic pipe protection was installed to protect the pipes against corrosion. Operation of the plant is monitored by an associated computer system. The pipeline system is equipped with modern valves and prefabricated concrete manholes. A challenge was to cross below several streets, railroads and channels by horizontal drill holes. In total 2,000 m horizontal drill holes with a diameter of 1,600 mm were built. The entire project was handed over turnkey to the client after 16 months.



### Technical Data

#### ■ Pump station

Capacity	100,000 m <sup>3</sup> /d
3 Drinking water reservoirs	30,000 m <sup>3</sup>
Disinfection plant to produce hypochlorite solution	2 x 120 kg/d free chlorine
Construction area	40,000 m <sup>2</sup>

#### ■ Infrastructure

Water and waste water pipes DN 300 - DN 1400, PN1 to PN 16	86.4 km
Prefabricated concrete manholes DN 1500	2,100 pieces
Valves and dismounting device DN 100 – DN 1400	925 pieces
Natural gas pipes DN 150 – DN 400	28.5 km
Cathodic pipe protection	28.5 km
Horizontal drill holes DN 1600	2,000 m



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