

# Sea Water Desalination Plant Ekerem

Construction and Operation of a Sea Water Desalination Plant



## AMIAN TIT WATER MANAGEMENT

Project Information

Products and Services

Drinking Water

Process Water

Waste Water

ICA Technology

Operation and Finance

## Sea Water Desalination Plant Ekerem

The town Ekerem is situated in Turkmenistan on the East banks of the Caspian Sea. To improve the drinking water supply PWT Wasser- und Abwassertechnik GmbH was awarded by state-owned oil company "Turkmenneft" to build a turnkey sea water desalination plant with reverse osmosis, disinfection plant and pump stations. The sea water desalination plant has a net capacity of permeate of 5,000 m<sup>3</sup>/d and guarantees drinking water supply for approx. 20,000 inhabitants on an area of approx. 3,000 km<sup>2</sup>.



The equipment of the plant was mostly prefabricated in Germany. After assembly on site and commissioning PWT Wasser- und Abwassertechnik GmbH operated the plant and trained the Turkmenian operational staff. After 12 months the plant was handed over to the local operator.

### Technical Data

#### ■ Size of Plant

Capacity of permeate 5,000 m<sup>3</sup>/d

#### ■ Treatment stages

- ~ Raw water pump station
- ~ Pre-treatment
- ~ Multilayer filtration
- ~ Reverse osmosis
- ~ Disinfection plant

#### ■ Pure water quality

GOST 2874-82

■ Raw water pump station	720 m <sup>3</sup> /h, 30 mWS
Multilayer filtration	4 pieces
Reverse osmosis	2 lines
	210 m <sup>3</sup> /h permeate
Network pump station	150 m <sup>3</sup> /h, 70 mWS
	240 m <sup>3</sup> /h, 250 mWS
Disinfection plant	2 x 15 kg/d Cl <sub>2</sub>