

# CASE STORY

## Water treatment ATLAS ENERJİ



Atlas Enerji Üretim A.Ş. was founded for electricity generation and trading activities by Diler Holding in 2008, in Iskenderun Turkey. The plant is 2 x 600 MW Coal Fuel Thermal Power Plant which will generate 8.500.000 kWh per year.

Supercritical boiler technology has been preferred in design and seawater has been used for cooling water. The sea water treatment system at Atlas Enerji has been built by Aquamatch Türkiye on turnkey bases

in 2014. The Desalination Plant consists of Ultrafiltration (UF) and Sea Water Reverse Osmosis (SWRO).

Seawater from the Mediterranean Sea is pumped to a storage tank and then feed to a pre-filtration system. The seawater passes through coarse screen before feeding to Bernoulli Filters, BSG 250 with 300 micron super duplex stainless steel baskets. By using Bernoulli Filters, the UF-system is protected from coarse and fine particles up to 300 micron. The filtered sea water is chlorinated for disinfection of microorganisms and transferred to a treated raw water tank.

Treated seawater is pumped to the UF-system consisting of 5 parallel trains with a total capacity of 1250 m<sup>3</sup>/h. The UF-system is an advanced pretreatment system used before desalination system in order to reduce suspended solids, turbidity and SDI (SiltDensity Index) to desired values. The SWRO system consist of 2 parallel trains with a total capacity of 500 m<sup>3</sup>/h. Desalinated water is fed to existing Demineralisation system in order to produce pure water for the turbines.

### Facts and figures

Customer: Atlas Enerji Üretim

A.Ş

Location: Iskenderun, Turkey.

Application: Pre-filter UF-system

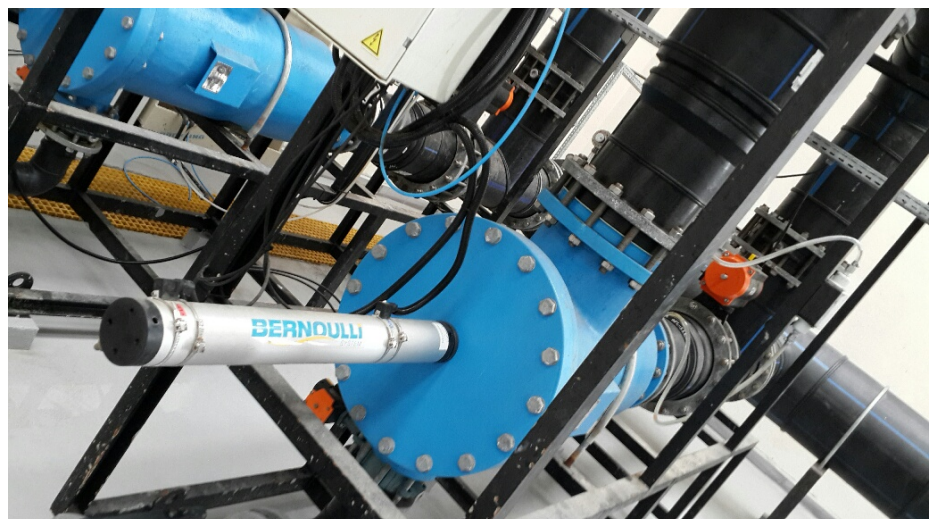
Filter model: 3 x BSG 250

Filtration: 0,3 mm

Operating flow: 3 x 500 m<sup>3</sup>/h

Operating pressure: 2 bar g

Design pressure: 10 bar g



**BERNOULLI**  
SYSTEM