

Miranda Wastewater Solutions for Construction Sites

Yenigün Construction Alparslan Dam II Project, Muş, Turkey Case Study for Miranda STP System

Construction Site Design Data

Total Population	: 500 people
Water Usage for Capita	: 200 lt / person
Daily Wastewater Flowrate	: 100 m ³ /day
The Quality of Treated Water	: Discharge
Water Supply	: External Network



In the majority of
construction sites wastewater
is simply discharged...

Yenigün Construction contributes
to preserving our planet by discharging
after treatment to the highest
acceptable standard.



Miranda Wastewater Solutions for Construction Sites

Operational Advantages

- Miracell is simple to operate
- Requires a short 1 day training
- Requires minimal maintenance by any person
- System start-up to produce satisfactory treated water within 2 weeks after installation.
- Easy sludge disposal at comfortable frequency.
- System can be serviced by Miranda through local representatives or any trained technical maintenance team servicing the construction site facilities.

FEATURES

Modular, Portable, Minimal footprint, Cost saving, Low maintenance cost, Low energy consumption, Minimal sludge production, Easy installation and commissioning.

BENEFITS

Can save significant costs of pump out trucks, Possible usage for concrete mixing & dust removal, Irrigation of landscape, Minimize surface cracking during concrete mixing.

Can be installed Indoors & Outdoors or buried in ground

MIRANDA recycles waste water in conformity with discharge norms (BOD 45, COD 120, TSS 45).



Skid Mounted Miracell MC50 Wastewater Treatment plant purchased by Exxon Mobil for their drilling camp in Iraq.

MIRACELL®



DROPBOX®



Operational Costs of the Miranda System

100 m³/day Capacity Miracell White W.W.T.P. Operation Cost Table Yenigün İnşaat

ENERGY CONSUMPTION

A. WASTEWATER TRANSFER PUMP

0,55 kW

Power	0,44 kW
Amount	1 pcs
Treated Water Per Month	3000 m ³
Daily Running Time	20 hour
Energy Consumption Per Month	264 kW

Cost Per Month

74,9 TL

20,2 \$ / Month

Cost Per m³

0,02 TL

0,01 \$ / m³

B. MIRACELL GEARBOX & MOTOR

0,25 kW

Power	0,20 kW
Amount	2 pcs
Treated Water Per Month	3000 m ³
Daily Running Time	24 hour
Energy Consumption Per Month	288 kW

Cost Per Month

81,7 TL

22,0 \$ / Month

Cost Per m³

0,027 TL

0,01 \$ / m³

C. CHLORINE DOSAGE PUMP

0,016 kW

Power	0,0128 kW
Amount	1 pcs
Treated Water Per Month	3000 m ³
Daily Running Time	20 hour
Energy Consumption Per Month	7,68 kW

Cost Per Month

2,2 TL

0,6 \$ / Month

Cost Per m³

0,0007 TL

0,0002 \$ / m³

Total Annual Energy Cost

1.906 TL

514 \$

Total Annual Energy Cost Per m³

0,05 TL

0,02 \$

FIXED DATA

Exchange Rate	: 3,71 TL / \$	Motor Int. Power	: 0,8
Daily / Monthly Flow	: 100 m ³ / 3000 m ³	Absorbed Power	: 0,8
Electric Cost	: 0,2838 TL - 0,08 \$ / kWh	1 Month	: 30 days



Miranda is proud to assist in saving significant amounts of funds while contributing to the environment.