

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.



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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

Power	0,55 kW	
Amount	0,44 kW	1 pcs
Treated Water Per Month	3000 m ³	
Daily Running Time	20 hour	
Energy Consumption Per Month	264 kW	

Cost Per Month	74 TL	25 € / Month
Cost Per m ³	0,02 TL	0,008 € / m ³

B. MIRACELL GEARBOX & MOTOR

Power	0,37 kW	
Amount	0,296 kW	2 pcs
Treated Water Per Month	3000 m ³	
Daily Running Time	24 hour	
Energy Consumption Per Month	426,24 kW	

Cost Per Month	120 TL	40 € / Month
Cost Per m ³	0,04 TL	0,01 € / m ³

C. CHLORINE DOSAGE PUMP

Power	0,016 kW	
Amount	0,0128 kW	4 pcs
Treated Water Per Month	3000 m ³	
Daily Running Time	20 hour	
Energy Consumption Per Month	7,68 kW	

Cost Per Month	2 TL	0,7 € / Month
Cost Per m ³	0,0007 TL	0,0002 € / m ³

Total Annual Energy Cost	2.376 TL	800 €
Total Annual Energy Cost Per m ³	0,06 TL	0,02 €

FIXED DATA

Exchange Rate	: 2,97 TL / €	Motor Int. Power	: 0,8
Daily / Monthly Flow	: 200 m ³ / 6000 m ³	Absorbed Power	: 0,8
Electric Cost	: 0,09 € / kWh	1 Month	: 30 days



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