

MNE ÇEVRE Kömürçüler Organised Zone Wastewater Treatment Plant Implementation Engineering



Plant description:

- Design is a concrete structure in compliance with the environment.
- Treated effluent will meet most stringent EU requirements.
- Contract covers process design, detail engineering and documentation.

Client:	MNE ÇEVRE MÜHENDİSLİK VE MÜŞAVİRLİK LTD.
Contract date:	2013
Capacity:	200 m ³ /d
Discharge requirements:	BOD < 5 mg/l, COD <70 mg/l , T-N: 15 mg/l , T-P: 1 mg/l , Oil&Grease : 5 mg/l
Brief description:	Design and engineering of a membrane bio-reactor plant to treat the domestic wastewater from the organised zone.

MBR Atıksu Arıtma Sistemleri Ltd.

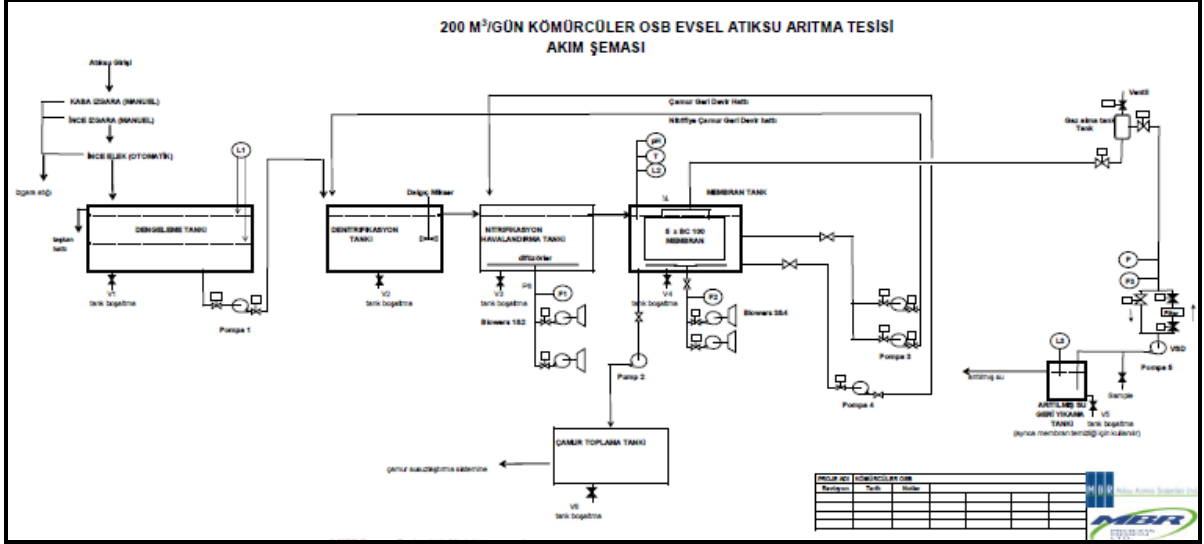
Bağdat Cad. No: 7, Kat: 4 Kızıltoprak – İstanbul

Tel: +(90)216 4141034- 4146035 Fax: 0216 4141344

e-mail: asistan@tr-mbr.com

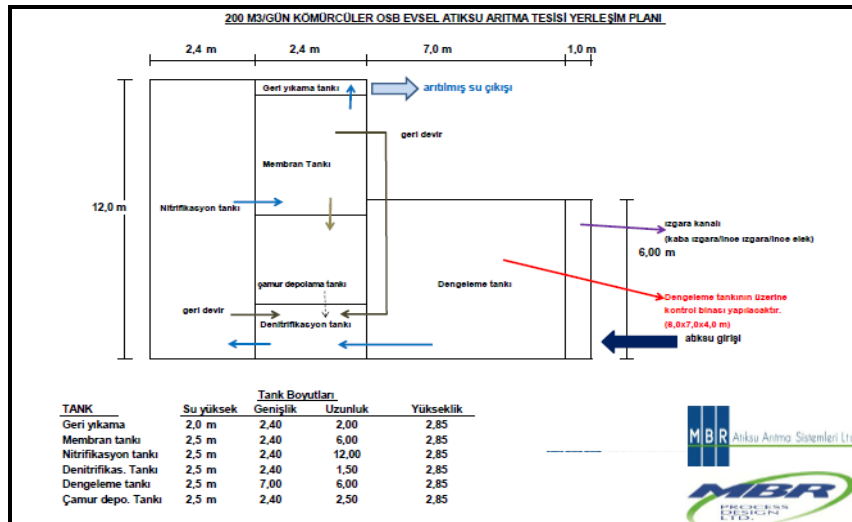
web: www.mbraritma.com.tr

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Process flow sheet

The domestic wastewater from the organised zone will be treated with submerged membrane bio-reactor plant. The wastewater will be fed to the balance tank from coarse and fine screens. After screening the flow is fed to denitrification and nitrification stages, treated permeate from submerged membranes is re-used for irrigation and excess is discharged. Plant is designed to operate fully automatic with minimum supervision.



Lay-out

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Design Data

Flow: 200 m³/d

Influent Parameters:

BOD	350 mg/l
COD	700 mg/l
Total P	5 mg/l
Total N	42 mg/l
Oil&Grease	30 mg/l
SS	250 mg/l
TDS	5,000 mg/l

Plant Data

Maximum daily flow	220 m ³ /d
Average daily flow	200 m ³ /d
Peak flow	5 l/sn
MLSS membrane tank	12,000 mg/l
Membran surface area	500 m ²
Sludge age	48 days
Sludge volume	23 kg/g

Discharge Consent

BOD	5 mg/l
COD	70 mg/l
Total N	15 mg/l
Total P	1 mg/l
SS	5 mg/l
Oil&Grease	< 5 mg/l
Nitrate	10 mg/l
Ammonium	5 mg/l

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