

## Banvit - Romania Factory Treatment Plant



Plant is in Romania close to Budapest.

### Plant Description:

- Financed by EU Sapard Programme.
- Full compliance to EU regulations with economy in footage.
- Effluent quality achieved meets the most stringent requirements.
- The MBR contract agreement provided for the process design, specification and supply of flat sheet membrane units.
- Additional services provided were M&E design assistance, inspections during installation, assistance to start-up, commissioning and membrane maintenance advice plus operator and management training..

<b>Status</b>	In operation
<b>Client</b>	Banvit
<b>Commissioned</b>	October 2008
<b>Required discharge quality</b>	EU regulations
<b>Performance</b>	EU regulations
<b>Brief description:</b>	Single flow joined membrane/aeration tank

### MBR Atıksu Arıtma Sistemleri Ltd.

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

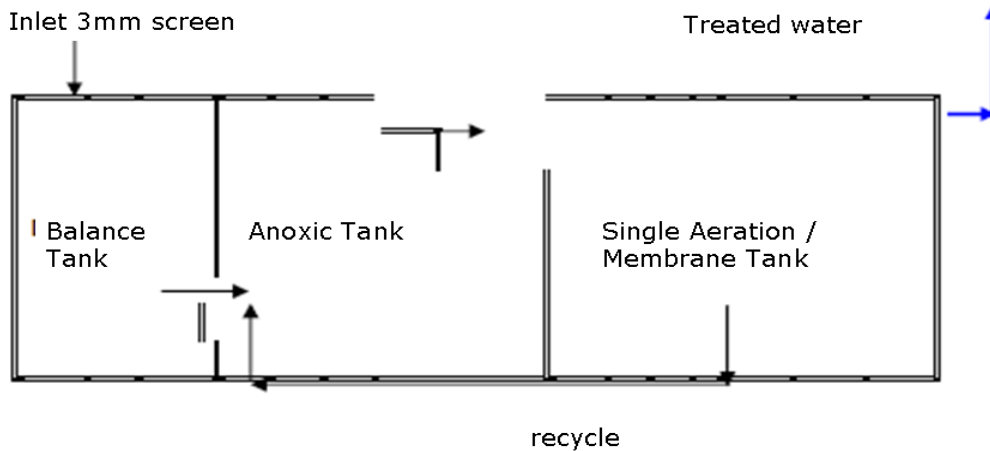
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### TANK LAYOUT



#### Process Description:

Tanks are of concrete construction.

Balance tank feeds process via fine 3mm bi-directional screen into MBR tank.

Single stream treatment process has joint aeration/membrane tank.

Treated effluent flows by gravity to the Clean Water Tank for re-use.

Plant designed to operate automatically with minimal supervision.

#### Design Requirements

##### Influent average loadings:

BOD	5,000 mg/l
COD	13,640 mg/l
TKN	900 mg/l
NH <sub>3</sub> – N	800 mg/l
SS	4,150 mg/l
TDS	5,000 mg/l

##### Effluent Standards

BOD	20 mg/l
Total N	15 mg/l
Total P	1 mg/l
SS	10 mg/l
Parasites	zero

#### Plant Data

Maximum daily flow	50 m <sup>3</sup> /d
Average daily flow	50 m <sup>3</sup> /d
Peak flow	0,6 l/sn
MLSS aeration tank	12,000 mg/l
Membrane units	1 x ES200
Membrane area	160 m <sup>2</sup>
Sludge age	28 days
Sludge volume	9 m <sup>3</sup> /d

#### Current Performance

BOD	<20 mg/l
Ammonia	<5 mg/l
N	<15 mg/l
Parasites	zero

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