MBR Package Plants
for Sewage Treatment

From Sewage to Pure Irrigation Water
Wastewater Treatment with MBR Technology

Our system ensures reliable reduction or elimination of polluting load such as suspended solids, organic matter, nutrients and microorganisms within an efficient process combination of biological treatment and membrane filtration. The result is clean and high quality effluent water, which can be re-used as service water or discharged to (even sensitive) receiving waters.

Scope of Supply for Complete Package Plants

MENA-Water offers complete MBR package plants, pre-assembled as containerized system (ISO sizes). This facilitates easy transportation, fast availability and straight start-up of the MBR plant. Included inside the package housing are all main components such as:

- Stainless steel membrane tank with modules and aeration system
- Blowers for aeration tank and membrane scouring
- Permeate pump, backwash and disinfection system
- Process instrumentation, electrical control cabinet with PLC

For optimized performance of the entire plant, all necessary equipment for installation in the external structures is included in our scope of supply:

- Equipment for lifting station and mechanical pre-treatment
- Diffusers, pumps, mixers for biological treatment
- Equipment for sludge treatment, grit and clean water pumping

If desired, MENA-Water provides comprehensive support for installation, start-up and maintenance activities and can consult anytime via remote monitoring from back office.

Beyond our MBR scope of supply, we can also offer solutions for further plant equipment such as:

- Sludge treatment
- Odor control
- Mobile power generator
- Containerized operator room
Benefits of our MENA-Water MBR Package Plants

- Well-proven, complete and clean system solution
- Compact footprint combined with convenient accessibility
- Minimum works for site installation and civil structures
- Full automatic system operation with online monitoring facility
- Adaptable to future demand due to modular system

Fields of Application

MENA-Water MBR package plants are capable to handle a wide range of capacities, starting from a daily throughput of a few cubic meters, reaching to some thousands of cubic meters per day. Our plants can be arranged custom-fit to serve your desired wastewater application.

Typical applications are:

- Common municipal sewage treatment
- Independent sewage treatment system for stand-alone operation (hotels / business areas / housing complexes etc.)
- Sanitation solution for outlying locations
- Sanitation solution for close and densely populated residential areas due to minimized smell, dirt and footprint
- Process step for industrial wastewater treatment
- Pre-treatment step for reverse osmosis plants

<table>
<thead>
<tr>
<th>Standard Sizes</th>
<th>Capacity m³/d</th>
<th>Population Equivalent</th>
<th>Approx. Footprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>MW-MR10</td>
<td>10</td>
<td>up to 85</td>
<td>8 x 3 m</td>
</tr>
<tr>
<td>MW-MR25</td>
<td>25</td>
<td>up to 210</td>
<td>8 x 3 m</td>
</tr>
<tr>
<td>MW-MR75</td>
<td>75</td>
<td>up to 625</td>
<td>12 x 4 m</td>
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<tr>
<td>MW-MR150</td>
<td>150</td>
<td>up to 1250</td>
<td>14 x 5 m</td>
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<tr>
<td>MW-MR300</td>
<td>300</td>
<td>up to 2500</td>
<td>14 x 6 m</td>
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<tr>
<td>MW-MR450</td>
<td>450</td>
<td>up to 3750</td>
<td>16 x 7 m</td>
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<tr>
<td>MW-MR600</td>
<td>600</td>
<td>up to 5000</td>
<td>20 x 7 m</td>
</tr>
<tr>
<td>MW-MR1000</td>
<td>1000</td>
<td>up to 8300</td>
<td>25 x 7 m</td>
</tr>
</tbody>
</table>

MBR Wastewater Treatment Plant
2000 m³/d