



SEWAGE TREATMENT PLANT - SKM – SHARJAH, UAE

S.K.M AIR CONDITIONING L.L.C

S.K.M Air Conditioning LLC is one of the leading manufacturers of HVAC (Heating, Ventilation and Air Conditioning) equipment in the Gulf area. Located at Industrial Area Sharjah, SKM operates out of a modern state of the art 43,000 m² factory. The waste water coming from factory staff and accommodations so far had to be discharged by tanker cars with 13 loadings a day and this needed access to several collecting manholes, blocking streets with car parking and causing bad odour to living areas.

MBR Package Sewage Plant

To solve this situation MENA-Water suggested to set up a collecting system with central holding tank and MBR treatment plant. This centralized plant is designed to receive all domestic waste water throughout the factory area by a pumping system. With the use of 2 package plants model MW-MR150 with very small footprint, the plant could be placed at an access road and no excavation work was needed in that densely build up area.

**PLANT
CAPACITY
250 m³/day**

Ultra Pure Water for Re-Use in Chillers

Included in the scope of works were lifting pumps, screening, grit removal, aeration tank equipment and the 2 MBR packages including all control and measuring instrumentation. Storage tanks for treated water and for sludge, including a dry bag unit for sludge dewatering are completing the treatment. An odour control unit is preventing the nearby accommodations from the smell of the sewage collecting system. The treated water finally is cleaned by an RO-system for further re-use at the factory installed chillers.

The entire plant is operated by PLC and observed through an online monitoring system 24h x 7d. Start-up was in February 2017.



MBR Package Plant

Equipment	Application
Screen	Screening removal
Grit & Grease Tank	Sand & FOG removal
Mixers and Aerators	Biological treatment
Blowers	Aeration and scouring
2 MBR Package Plants MR150	Ultra-Filtration
Reverse Osmosis Unit	Pure water for re-use
Pumping System	Sewage collecting & service water
Bag System	Sludge dewatering
Instrumentation	Flow, level, H ₂ S, TSS, DO, pressure control
Control Panels / PLC	Complete auto control



Sewage Plant with very small Footprint



Reverse Osmosis Unit