

CASE STUDY



ADVANCED INDUSTRIAL WASTEWATER TREATMENT PLANT FOR AN INTERNATIONAL TOBACCO FACTORY

DEVISE ENGINEERING S.A. designed, supplied, installed and commissioned a Wastewater Treatment Plant for the **new tobacco factory of PAPASTRATOS CMC S.A. (A Philip Morris International company)**.

This DEVISE Design & Build Wastewater Treatment Plant treats the industrial wastewater effluent from this factory which has a total organic load of up to 4.850 kg COD per day and its hydraulic capacity is 800 m³/day.

This Industrial WWTP was implemented using DEVISE pre-engineered and prefabricated units to a great extent, thus offering an effective solution that limited the land requirements for project implementation and the disruption of the factory's business.

The treatment process includes the following stages:

- Pretreatment (Coarse screening – Sand and oil separation – Fine screening)
- Equalization – Homogenization
- Primary treatment with Chemical Coagulation – Flocculation – pH Correction
- Pre-sedimentation (rapid settling)
- First biological treatment stage using **MBBR** (Moving Bed Biofilm Reactor) technology
- Dissolved Air Flotation Separator as a Clarifier
- Second biological treatment stage using **MBR** (Membrane Bioreactor) technology
- Membrane Ultra Filtration for separation of solids (biomass)
- Ultra Violet disinfection
- Sludge Stabilization
- Excess Waste Sludge Dewatering by Decanter Centrifuge

The Construction and the commissioning of the Industrial WWTP finished successfully and the plant is in full operation since October 2018 achieving the required treated effluent quality for unlimited irrigation and disposal according to local regulations for discharge (Basic parameters: SS<2mg/L, BOD <10mg/L, TN<15mg/L, TP<2mg/L).

The Wastewater Treatment Plant is fully automated and controlled through an advanced PLC & SCADA system to ensure reliable and efficient operation.



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