

River Cruiser MV „RheinEnergie“

BIOLOGICAL BMA® MEMBRANE PLANT
WITH SICLARO® FILTRATION TECHNOLOGY

Task

MARTIN Systems successfully installed their biological membrane technology onboard the new built 1400 passenger river cruise ship MV „RheinEnergie“.

Ship Details

Being finished in 2004, the MV „RheinEnergie“ is a milestone in river cruise entertainment. Solely designed as an event ship, the vessel offers on more than 2000 m² and 3 decks everything you need to host even the largest event. If there is a carnival or company party, a concert, product presentations or a shareholder meeting, the MV „RheinEnergie“ offers the latest light and sound technology, modern presentation techniques – besides the vast sun deck.

Wastewater Management

The MV „RheinEnergie“ is equipped with one biological membrane plant which is capable of treating the produced wastewater of up to 1600 passengers. Being planned and built with a biological sewage treatment plant first, the ship has been refitted with membrane technology shortly thereafter. Special feature of the installation is that the vessel does not need a separate grease separator. All the wastewater is treated directly in the BMA® plant.



Treatment Capacity

Population Equivalent (PE)	1600/400
Raw sewage input (m ³ /d)	55
Grey water input (m ³ /d)	48
BOD ₅ input (kg/d)	48
No. of membrane modules	32
Total BMP tank volume (m ³)	10



Final Effluent Quality

The final effluent exceeds all requirements given by the IMO (International Maritime Organization), the German „Seerberufsgenossenschaft“, Germanischer Lloyd and the German Navy.