

Research Vessel „Maria S. Merian,,

BIOLOGICAL BMA® MEMBRANE PLANT
WITH SICLARO® FILTRATION TECHNOLOGY

Task

MARTIN Systems successfully installed their biological siClaro® membrane technology onboard the new built arctic research vessel “Maria S. Merian”.

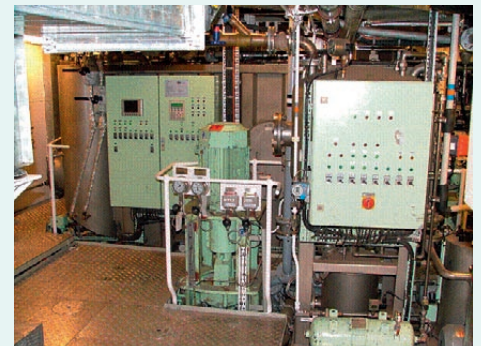


Ship Details

Being designed to conduct research missions in the northern arctic waters, the MV “Maria S. Merian” offers a variety of equipment to support researchers and crew in this uncomfortable environment. Besides the heavy winches and cables to lower equipment deep into the water, it has all kinds of electronic gear such as deep sea echo lots which can visualize the ocean floor in a depth up to 10,000 m.

Treatment Capacity

| | |
|---|-----|
| Population Equivalent (PE) | 50 |
| Raw sewage input (m ³ /d) | 8,5 |
| Grey water input (m ³ /d) | 7,9 |
| BOD ₅ input (kg/d) | 4,5 |
| No. of membrane modules | 12 |
| Total BMP tank volume (m ³) | 3 |



Wastewater Management

Preserving nature as much as possible, the vessel has been equipped with the latest technology in wastewater treatment. The biological membrane plant has been installed combined with the also supplied vacuum plant. The system has enough capacity to support 50 permanent passengers. According to the latest IMO regulations, the bilge water sewage is also being treated onboard MV “Maria S. Merian”. As a special feature, the biological BMA® reactor is connected to the bilge water tanks and purifies the emerging deoiled bilge water sewage.

Final Effluent Quality

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