

German Marine Frigate (Type 124)

BIOLOGICAL STKS 250 WITH
FIXED FILM TECHNOLOGY

Task

MARTIN Systems has been contracted to install the wastewater treatment system for the new frigate F124.

Ship Details

Class 124 frigates are designed as multi-purpose frigates and are equipped with shipboard helicopters for escorting and area protection. Their sensors and weapons are optimised to fulfil their primary tasks, i.e. force command and force air defence.

Wastewater Management

The F124 is equipped with a STKS 250 plant consisting of a buffer tank with an upstream installed fine screen, followed by Biolace® fixed film technology installed in a vertical reactor and a clarifier. Furthermore MARTIN Systems provided a pumping station for the receiving wastewater and a flotation plant to separate grease. The STKS 250 operates fully automated and is integrated into the ships' central control systems.



Treatment Capacity

Population Equivalent (PE)	250
Max. throughput (m ³ /d)	35
BOD ₅ input (kg/d)	22,5
Aeration tank volume (m ³)	12,5
Clarifier (m ³)	6,65



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.