

Filtration Group application example - Separation Technology

Chemical Free Ballast Water Treatment System – OPS 800



Marine Industry

Initial situation

In order to **halt the unintentional spread of organisms** through ballast water the **International Marine Organization (IMO)** is establishing a convention which will in future regulate how ballast water is treated. The convention should have been legally binding from 2012, latest from 2016 for new vessels. After 2016 the convention **will become compulsory for all international ocean-going vessels**. The interim regulations are the D1 Ballast Water Exchange Standard and the D2 Ballast Water Performance Standard. To ensure compliance with the convention the **entire global fleet will gradually be fitted or retrofitted with ballast water treatment systems**.

Solution statement

These container vessels are each fitted with an **OPS 800** system that treats ballast water flow rates of 800 m³/h with proven Filtration Group technology in accordance to the **applicable IMO D2 standard**.

The **OPS** comprises:

- A maintenance free pre-filtration system
- An automatically back flushable main filtration system
- A low-pressure UV irradiation facility for disinfection

Even the more **stringent requirements** applicable in the USA (USCG standards) **can be fulfilled** as the values obtained in both the land and sea tests fell **significantly below the IMO thresholds**.

Customer value

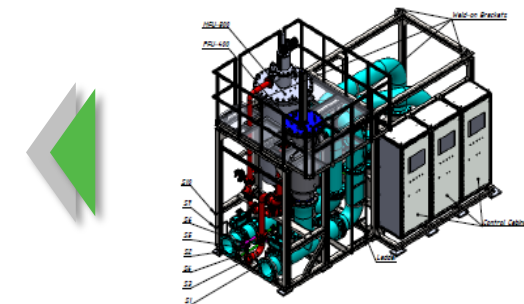
- Reliable operation due to **longtime approved Filtration Group components**
- Effective **two stage pre-filtration**
- **Energy efficient** low pressure UV disinfection
- **No chemicals additives required**
- Optimized solution for new ships and retrofit solution, because of **modular system concept**
- **Worldwide distribution and service by Filtration Group Industriefiltration**



Challenge

A well-known German ship building company in Hamburg ordered 6 container vessels with **6.900 TEU** (Twenty Foot Equivalent Unit) each in the **world largest shipyard of Hyundai Heavy Industries** in Ulsan, Korea.

The **332 meters long and 48,2 meters wide** vessels should be equipped with a **reliable ballast water system**, that not only **fulfills the IMO standards**. The requested ballast water treatment system should be extraordinary energy efficient and should require as little maintenance as necessary.



Filtration Group GmbH
Schleifbachweg 45
74613 Öhringen

Phone: +49 7941 / 6466 - 0
Mail: industrial.sales@filtrationgroup.com
www.industrial.filtrationgroup.com

