



MARINE

Fresh Water Generator Case Study M/V Hermes Leader

HydroFLOW® units on MV Hermes Leader controlled scale formation, extended maintenance intervals, and reduced cleaning downtime.

1-2 ppm

Low Salinity Achieved



Clean Plates (Deposits Removed)

~17 m³/d

Stable Production Maintained

4000 hrs

Extended Operation Period

BEFORE & AFTER

BEFORE

- ✗ Scale build-up on FWG plates
- ✗ Water production reduced over time
- ✗ Cleaning could risk plate damage

AFTER

- ✓ Scale deposits were easily removed from plates
- ✓ Only minor residue required brushing
- ✓ Cleaning time was reduced



BEFORE

FWG plates with scale



AFTER

Scale removed from FWG plates

OVERVIEW

MV Hermes Leader installed a HM120 unit on the seawater inlet pipe to the freshwater generator. The system was inspected after 9 months in service and approximately 4,000 running hours. The aim was to control scale formation within the FWG plates, extend maintenance intervals, and make cleaning easier without damaging the plates.

CHALLENGE

The freshwater generator required longer service intervals and easier cleaning due to scale build-up on the plates.

- Scale accumulated on FWG heat exchanger plates.
- Water production reduced to around 17 m³/day
- Manual scraping could risk plate damage
- Cleaning downtime needed to be reduced

SOLUTION

A HM120 unit was installed on the seawater inlet pipe to the freshwater generator to control scale formation and improve scale condition within the heat exchanger plates.

UNIT INSTALLED

1x HM120

INSTALLATION POINT

Seawater inlet pipe to FWG

INSTALL DATE

January 2015

INSPECTION DATE

21 October 2015

RESULTS

9 month service interval

The FWG was opened for cleaning after 9 months in service and approx. 4,000 running hours.

Scale detached easily

When the plates were opened, most accumulated scale detached easily.

Minor residue only

Only a small amount of residue remained, requiring light brushing.

Less plate damage risk

Reduced need for scraping helped minimise risk of plate damage.

Cleaning downtime reduced

Cleaning time was reduced due to easier scale removal.

7 kg salt removed

Approx. 7 kg of salt deposits were removed from the plates after 4,000 hours of operation.

KEY TAKEAWAY

Summary

HM120 was installed on MV Hermes Leader on the seawater inlet to the fresh water generator. After 9 months and around 4,000 running hours, the unit was opened for cleaning. Scale had formed on the plates, but most deposits detached easily, leaving only minor residue. This reduced cleaning time and lowered the risk of plate damage.

9 mo

SERVICE INTERVAL

4000

RUNNING HOURS



EASIER CLEANING

HYDROPATH

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HydroPath Technology is a world leader in sustainable water treatment solutions, providing chemical-free alternatives for industrial and commercial applications across more than 50 countries.

50+

COUNTRIES

30+

YEARS EXPERIENCE

1M+

UNITS INSTALLED

RELATED CASE STUDY

Fresh Water Generator Case Study

MV Hoegh America

A HydroFLOW® unit was installed on the fresh water generator aboard the MV Hoegh America to combat scale on titanium plates. The unit successfully prevented scale formation, reducing both labor and chemical costs while maintaining optimal freshwater output.

Scale Prevention

Eliminated scale buildup on FWG titanium plate heat exchangers

Reduced Labor

Less manual cleaning required, freeing crew for other duties

Lower Chemical Cost

Reduced need for chemical descaling treatments aboard the vessel

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