



MARINE

## Fresh Water Generator Case Study UBC Baton Rouge

*HydroFLOW*® treatment replaced chemical dosing on the FWG onboard UBC Baton Rouge. Over a 179-day inspection period, water production remained stable and maintenance openings were reduced.

0

Chemicals Used

2

FWG Openings in 179 days

3x

Longer Opening Intervals



Maintenance



### BEFORE & AFTER

#### BEFORE

- ✗ FWG opened approximately once per month
- ✗ Cleaning typically took around 24 hours
- ✗ Hard scale deposits held plates together

#### AFTER

- ✓ No chemical dosing used after installation
- ✓ FWG operation remained stable
- ✓ FWG opened only twice over 179 days



### OVERVIEW

UBC Baton Rouge is a 1998 vessel managed by Intership Navigation Co. Ltd. A HM100 unit was installed on the Alfa Laval 15 m<sup>3</sup>/24h freshwater generator to replace chemical treatment for scale and marine growth control. The inspection period covered approximately six months, from 3 November 2015 to 30 April 2016, following installation during dry dock at the Port of Constanta, Romania.



### CHALLENGE

The vessel required a solution to replace chemical treatment while reducing scale-related cleaning and maintaining FWG performance.

- FWG was typically opened once a month when output dropped by 5–6 m<sup>3</sup>/24h
- Cleaning usually took around 24 hours including chemical treatment
- Hard scale deposits held the plates firmly together
- Plate removal required significant force

## SOLUTION

A HM100 unit was installed on the FWG inlet pipe approximately 1 metre before the heat exchanger during dry dock in Constanta, Romania.

### UNIT INSTALLED

1x HM100

### INSTALLATION POINT

FWG inlet pipe, approx. 1 m before heat exchanger

### INSTALL DATE

3 November 2015

### INSPECTION PERIOD

179 days



### INSTALLATION

HM100 on FWG inlet pipe



### INSTALLATION

FWG inlet pipework

## RESULTS

### No chemical dosing used

No chemical dosing pump was used during the full inspection period.

### Stable FWG operation

FWG water production remained stable with no loss of output over 179 days.

### Only two maintenance openings

FWG was opened just twice for maintenance during the 179-day inspection period.

### Longer maintenance intervals

Opening intervals increased by three compared to the previous chemical treatment.

### KEY TAKEAWAY

## Summary

A HM100 unit was installed on the Alfa Laval FWG onboard UBC Baton Rouge to replace chemical treatment for scale and marine growth. Before installation, the FWG was opened monthly and cleaning took around 24 hours due to hard scale deposits. Over 179 days, no chemicals were used, operation remained stable, and the system was opened only twice, extending maintenance intervals.

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CHEMICAL DOSING USED

2

FWG OPENINGS

3x

LONGER OPENING GAPS

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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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