



FOOD INDUSTRY

Brewery Cooling-Water Treatment Case Study **Kyiv, Ukraine**

Three brewery trials recorded softer deposits, reduced biofouling and easier filter cleaning, with 60% less filter contamination and operation without chemicals.

60%

Less Filter Contamination

0

Black Biofouling Observed

↑

Filter Cleaning Improved

30 days

Filter Performance Restored

BEFORE & AFTER

BEFORE

- Sticky deposits resisted water cleaning
- Hard scale required chiselling
- Green, black and yellow biofouling

AFTER

- ✓ Deposits rinsed away with water
- ✓ Hard scale became soft and removable
- ✓ Black biofouling was eliminated



BEFORE

Sticky filter deposits before treatment



AFTER

Deposits rinsed away after treatment



OVERVIEW

Obolon Brewery in Kyiv evaluated Hydropath treatment through three cooling-water trials. Trial 1 assessed a heat-exchanger cover and tube bundle, Trial 2 compared mechanical-filter condition before and after treatment, and Trial 3 followed a heavily fouled filter over 30 days. The trials assessed changes in scale, biological fouling and ease of cleaning.



CHALLENGE

Hard deposits and biological fouling affected cooling-water equipment and made cleaning difficult.

- Hard deposits on the heat-exchanger cover required a chisel
- Green biological slime coated the cover and tube bundle
- Filters carried sticky deposits that resisted rinsing
- One filter was fully blocked by black and yellow biological deposits



SOLUTION

One *HydroFLOW*® Industrial trial unit was installed across selected brewery cooling-water circuits, with inspections tracking changes in deposits, biofouling and filter condition.

UNIT INSTALLED

1x *HydroFLOW*® Industrial trial unit

APPLICATION

Brewery cooling-water circuits

EQUIPMENT INSPECTED

Heat exchangers, filters and valves

TRIAL

Three operational trials



INSTALLATION

Unit on cooling-water pipe



RESULTS

60% Less Contamination

Mechanical-filter contamination fell by 60% during the second brewery trial.

Deposits Easier to Remove

Hard cover deposits became loose and could be removed by hand after one month.

Water-Only Filter Cleaning

Trial 2 deposits became non-sticky and washed away under running water.

Green Fouling Absent

Green biological deposits were no longer visible on the cover or tube bundle.

Black Fouling Absent

Black biological deposits were no longer visible at the seven-day inspection.

Filter Function Restored

Filter operation was restored within 30 days without chemical or manual cleaning.

KEY TAKEAWAY**Summary**

Across three cooling-water trials, Hydropath treatment softened deposits, reduced visible biofouling and made filter cleaning easier. Filter contamination fell by 60%, while Test 3 restored filter function within 30 days without chemical or manual cleaning.

60%

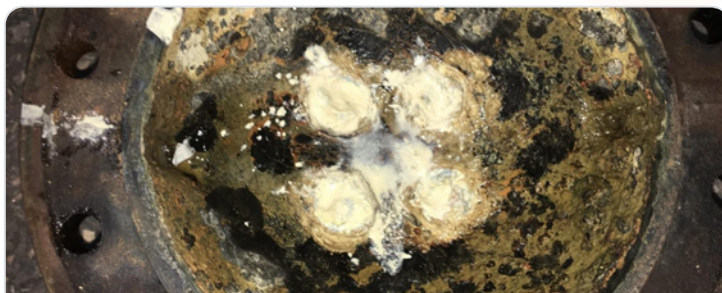
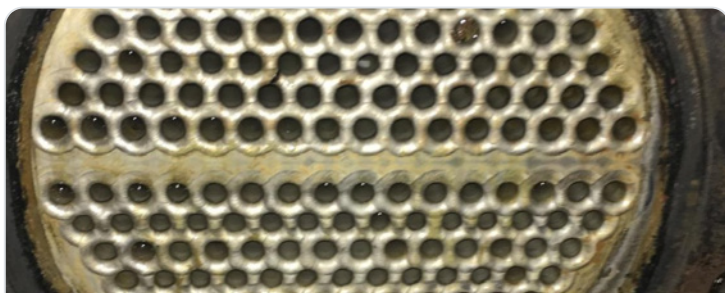
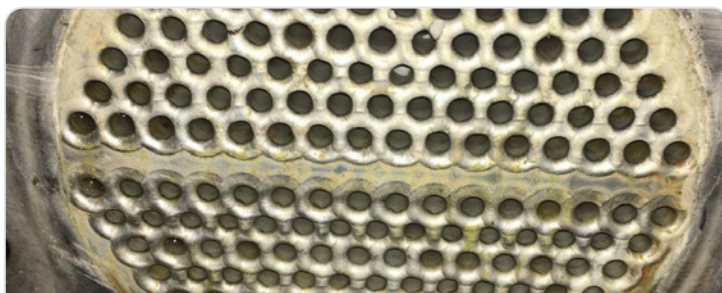
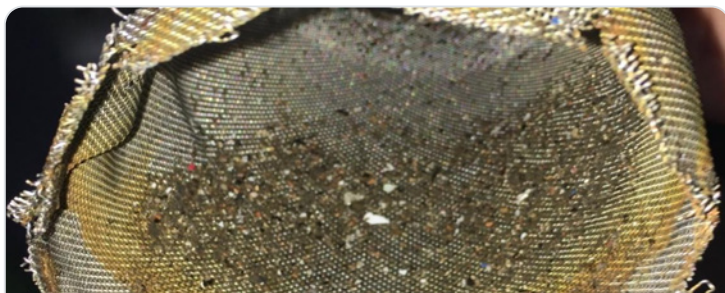
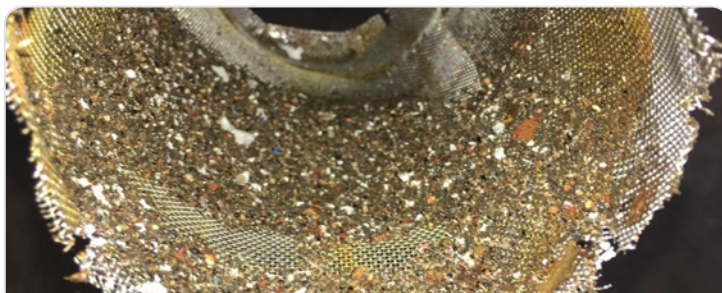
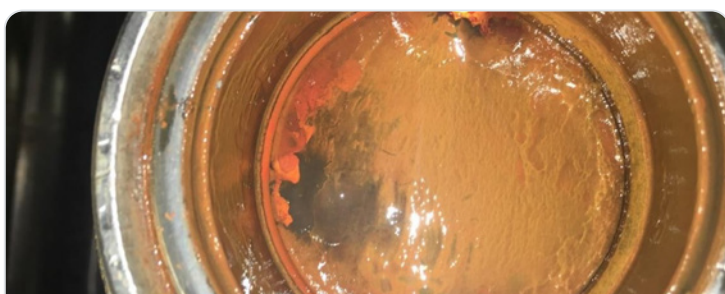
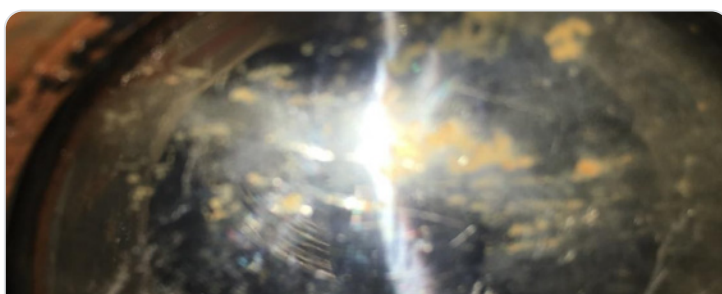
LESS FILTER CONTAMINATION

0

BLACK BIOFOULING OBSERVED

↑

FILTER CLEANING IMPROVED

**ADDITIONAL PHOTO EVIDENCE****BEFORE***Trial 1: Hard cover deposits required chiselling***AFTER***After 1 month: Deposits softened and removed by hand***BEFORE***Trial 1: Green slime covered the tube bundle***AFTER***After 1 month: Green slime was completely absent***BEFORE***Trial 1: Filter had minor deposits before treatment***RESULTS***After 1 month: More deposits collected in the filter***BEFORE***Trial 2: Sticky deposits resisted water cleaning***AFTER***After treatment: Deposits rinsed away with water*



BEFORE

Trial 2: Isolation valve before treatment



AFTER

Trial 2: Isolation valve after treatment



BEFORE

Trial 3 Day 0: Filter completely blocked



BEFORE

Day 0: Black and yellow biofouling covered the filter



INSPECTION

Day 7: Yellow biofouling visibly reduced



RESULTS

Day 7: Black biofouling completely absent



CLEANING

Day 25: Filter rinsed clean with running water

HYDROPATH 

Ready to improve cooling-water performance?

Speak to HydroPath about treatment for food-industry cooling-water systems.

✉ sales@hydropath.com ☎ +44 (0)115 986 9966 🌐 [hydropath.com](https://www.hydropath.com)

✓ ISO 14001:2015

✓ ISO 9001:2015

✓ GREENPRO

✓ SOLAR IMPULSE